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Mobile Support Update Update

What's Up With Smartphones, Remote Data & Roaming Workers

by David Garrett

THE OFFICE IS GETTING BIGGER and its boundaries less distinct. Notebooks, smartphones, and cell phones give your data legs. Every Borders, Barnes & Noble, Starbucks, and FedEx Kinko's has a hotspot. Cingular, Sprint, T-Mobile, and Verizon offer 3G access. VPNs and mobile VoIP are nearly commonplace. Once sedate, knowledge workers are no longer tethered to their desks.

But with all that movement come troubles. "When you move the edge of the network out to people's homes and coffee shops and on the road, it becomes a lot more difficult to support," says Mark Tauschek, senior research analyst with the Info-Tech Research Group. In part it's because you're working, by and large, by phone, without your eyes to guide you. And in part it's because of the sheer range of options. Even a small company can use five types of smartphones, 10 types of cell phones, and hotspots from coast to coast, all of which add to support woes.

Embarrassment Of Riches

Indeed, the range of mobile options is daunting. Take 3G, short for "third generation," which refers to mobile broadband that rivals landbased transmission speeds (at least in theory). First is EVDO (Evolution Data Optimized), offered by Sprint (www.sprint.com) and Verizon (www.verizon.com) either through PC cards or a tethered connection between notebooks and cell phones. Networks advertise connection speeds of 400 to 700Kbps, which vary based on location, signal strength, and even the network

itself. (Sprint, for instance, has upgraded parts of its network to faster "Revision A" EVDO but has yet to finish the rollout.)

EDGE (Enhanced Data for GSM Evolution), offered by Cingular (www.cingular .com) and T-Mobile (www.t-mobile.com), is sometimes called a 3G product despite the fact that its connection speed is closer to ISDN than DSL. But HSDPA (High-Speed



Downlink Packet Access) is the cutting edge of 3G. Offered by Cingular now and T-Mobile later this year, HSDPA beats EVDO by a slim margin. But according to Tauschek, speed is not always a virtue. "The support folks don't really have insight into or ability to rectify problems with 3G access," he says.

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Better Understanding Your Data Center

Communications, Due Diligence & Planning Help

by Will Kelly

DATA CENTERS are seeing a phenomenal shift with the amount of data, equipment, and enterprise storage requirements they must accommodate to meet ever-changing

business requirements and compliance programs such as Sarbanes-Oxley and HIPAA.

Gaining a handle on your data center dynamics, including airflow, electrical power, and cooling, is crucial to gaining a handle on costs and technical issues you

"SMBs are going to have a bit more of a difficult time in predicting their future."

-Syska Hennessy Group's Cyrus Izzo

may encounter as you plan budgets and project plans to support your SME's business.

Realizing The Current & Future State Of Your Data Center

Cyrus Izzo, senior vice president and national critical facilities director for Syska Hennessy Group (www.syska.com), a top national and international engineering and construction firm, advises SME data center managers to, "First, take a look at where they are and where they want to be and plan for the future state." Looking at the current state means you need to document your data center infrastructure, including Internet connectivity, electrical power, and facilities.

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■ AirMagnet released the latest version of its WLAN analyzer software, Laptop Analyzer 7.0 PRO. ■ APC announced its InfraStruXure InRow RP. ■ AppSense unveiled the latest iteration of its

Management Suite server optimization software.

■ Aten Technology announced two new rackmount CAT5 KVM switches: the KH1508 and KH1516. ■ MGE UPS Systems introduced the latest version of its Network Shutdown Module power management software. ■ NetSupport released NetSupport Manager 10, which provides remote control functions to Windows CE, Pocket PC, and Windows Mobile devices. ■ Radware unveiled DefensePro version 3.10 IPS software.

■ **Symantec** introduced Symantec Enterprise Vault 7.0 for content archiving.

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DIGITAL BROTHERS GROUP	ISTOR NETWORKS INC	RACKMOUNT SOLUTIONS					

Upcoming IT Events

- FEBRUARY -

SCALE 5x - 2007 Southern California Linux Expo February 10-11 Los Angeles, Calif. www.socallinuxexpo.org

> **Gartner Business Process** Management Summit

February 26-28 San Diego, Calif.

www.gartner.com/2_events/conferences/bpm3.isp

Comptel Plus Spring 2007 Convention & Expo

February 27-March 2 Las Vegas, Nev. www.comptel.org

- MARCH -

DAMA International Symposium March 4-8 Boston, Mass. www.wilshireconferences.com

> VoiceCon March 5-8 Orlando, Fla. www.voicecon.com

.

Gartner Business Intelligence Summit

March 12-14 Chicago, III. www.gartner.com/2 events /conferences/bi5.jsp

Boston SecureWorld Expo March 14-15

Boston, Mass. www.secureworldexpo.com

. TelecomNEXT

March 18-21 Las Vegas, Nev. www.telecom-next.com

Gartner Outsourcing Summit March 19-21 Dallas, Texas

www.gartner.com/2_events/conferences/std10.jsp

March 20-22 Washington, D.C. www.fose.com

Visit Processor at Booth 1643

FOSE

. **Data Center World**

> March 26-27 Las Vegas, Nev. www.afcom.com

Visit Processor at Booth 514

RFID World March 27-29 Dallas, Texas

www.shorecliffcommunications .com/rfid07

Secure IT Conference March 27-29 Sacramento, Calif. www.secureitconf.com

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MarketPlace ~ NEWS





Michael Dell Regains CEO Title . . .

DELL CEO KEVIN ROLLINS resigned effective immediately; Michael Dell, founder and chairman of the company, will again take over as CEO. Rollins, who also resigned from Dell's board of directors, replaced Dell as the CEO in July 2004 after serving as the company's president and COO. The company has been facing several challenges in recent years, including the battery recall last year and complaints of poor customer service, and has been steadily losing market share to HP. Dell also said its latest quarterly results would fall below analyst revenue estimates of \$15.3 billion and earnings of about 32 cents per share.

I... And Announces Changes

AFTER DELL'S DIFFICULT YEAR, which has included losing its lead in market share to HP and an SEC investigation into its accounting practices, CEO Michael Dell has announced some changes. He says the company plans to save money by cutting back on management, with the company trimming its top managers from more than 20 down to 12. Dell will also reduce employee bonuses by revamping its procedures; instead of the current bonuses, employees (excluding senior management) will receive "limited discretionary awards" when appropriate. Dell also announced that the company will not be hiring a new chief operating officer.

Intel, AMD Market Share Gains

BOTH INTEL AND AMD could claim good news in the latest look at processor market share by Mercury Research. Intel reclaimed some of the server processor market share, likely because of its Woodcrest chip. But AMD made gains in the x86 processor market, increasing its share to 25.3% of the market, compared to 21.4% a year ago. Intel lost overall processor market share, dropping from 77% a year ago to 74.4% last quarter. However, according to Mercury Research, Intel's average processor selling price increased 7%, while AMD's average selling price dropped 13%.

Phishing Exceeds Virus & Trojan Attacks

FOR THE FIRST TIME, the number of phishing attacks sent via email has surpassed viruses and Trojans, MessageLabs reported in its latest Intelligence Report. January saw an increase of 0.55% in phishing attacks over December in that one email in 93.3 (or 1.07%) contained a phishing attack. The increase in phishing attacks may stem from attackers using Flash content instead of HTML to avoid browsers' antiphishing techniques and more sophisticated "man-in-the-middle" phishing sites to overtake merchants' twofactor authentication. MessageLabs also said viruses (including Trojans) rose 0.08% from December to January to occur in one of every 119.9 emails (0.83%), while spam increased 1.5% to one in every 1.32 emails (75.8%).

New Notebook Battery Being Tested

BOSTON-POWER SAYS it is developing a new battery that is very similar to a lithiumion battery, only safer. Because the Sonata battery is electrically and mechanically compatible with current notebook designs, companies that manufacture notebooks won't have to make any changes to use the

new technology. In addition to the improved safety, the Sonata battery is able to charge to 80% capacity in a half-hour, while most other batteries reach 90% capacity after one to two hours of charging. Although there are no immediate plans for the use of the Sonata battery in a notebook, HP has been testing the battery for 18 months and could reach a deal with Boston-Power for a notebook using the battery to be released as early as this summer.

IBM To Buy Softek

IN A MOVE EXPECTED to help it better compete in the storage and hardware arena, IBM has announced plans to acquire data mobility technology vendor Softek Storage. Although terms of the deal have not been released, it is expected to close in the first quarter. Worldwide, Softek currently has about 40 solution provider partners, which are expected to become IBM partners after the acquisition. Steven Murphy, president and CEO of Softek, will become vice president of data mobility services at IBM.

U.S. Gets "D" In Cyber Security

THE U.S. CONGRESS must pass a comprehensive law related to data breaches and protection, according to the CSIA (Cyber Security Industry Alliance). Citing the failure of Congress to pass such a law last year, along with data breaches at the U.S. Department of Veterans Affairs and loss of personal data by several other government agencies, the CSIA gave the U.S. government a D grade for its cyber security efforts. The CSIA, which represents several cyber security companies, says a data breach law must include requirements for all companies with sensitive data to implement reasonable security standards and to notify customers when breaches occur.

■ IBM Selling Lenovo Shares

IBM REPORTEDLY is selling 300 million, or about 3.5%, of its shares in PC manufacturer Lenovo and could potentially sell its remaining Lenovo shares by November of this year. The 300 million shares being sold are worth an estimated \$127 million. IBM is Lenovo's second-largest shareholder at 15%; the company sold its PC manufacturing business to Lenovo for \$1.75 billion in 2004.

Dell Faces Lawsuit

A GROUP OF DELL INVESTORS filed a lawsuit against the company last week, claiming that Dell utilized illegal accounting practices in an attempt to cover up secret kickbacks that chipmaker Intel paid to the company. According to the lawsuit, the

payments were made to ensure that Dell would exclusively use Intel processors in its PCs. As a result of the kickbacks, investors are saying that Dell's profits were inflated by hundreds of millions of dollars, according to a recent report in The Wall Street Journal. Dell has not yet commented on the allegations, while Intel has denied the charges.

ID Fraud Drops

ACCORDING TO A SURVEY conducted by Javelin Strategy & Research, cases of identity fraud in the United States have fallen during the past year. In 2006, ID fraud totaled \$49 billion, which is a 12% decrease from 2005, which saw \$55.4 billion in ID fraud. Since the first survey Javelin conducted in 2003, the percentage of people affected by fraud has also decreased from 4.7% in 2003 to 3.7% last year. Between 2005 and 2006 there was also a decrease in new account fraud, which fell from 1.52% in 2005 to 1.05% in 2006.

IBM Has Upped Employee Numbers

OVER THE PAST TWO YEARS, the number of IBM employees in India has more than doubled, from 23,000 two years ago to 39,000 a year ago to now 53,000. If the company continues in this growth pattern, analysts say this year IBM will reach a total worker headcount in India of more than 70,000. That 70,000 would signify more than 50% of the United States' current IBM workforce, which totals 130,000, and nearly a quarter of IBM's worldwide employee count, which is 300,000. IBM says it's expanding there not only for the highly skilled, inexpensive tech workers available but also because India has become its fastest-growing geographical market, with sales up 37% last year.

China Launches Trial 4G Network

ALTHOUGH IT HAS YET to decide on standards for its 3G network, China has started testing a 4G mobile communications network in the Changning District of Shaghai. According to China Daily, the field test of the homegrown 4G system will cost about \$19.3 million (150 million Chinese renminbi) and will show that the network can transmit data at speeds up to 100Mbps. The group responsible for putting the 4G network in place includes 10 institutions within China; over the six years it has been working on the project, it acquired more than 200 patents. The group hopes to have the 4G network available on a trial commercial basis between now and 2010.

WATCH THE

prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	Jan. 29 \$	Feb. 5 \$	% change from previous week
Avaya	AV	\$10.73	\$12.65	\$12.75	▲ 0.79%
BEA Systems	BEAS	\$10.67	\$12.21	\$12.78	4 .67%
Computer Associates	CA	\$27.73	\$24.54	\$26.62	▲ 8.48%
Cisco Systems	CSCO	\$18.89	\$26.21	\$27.51	4 .96%
Dell	DELL	\$29.66	\$23.85	\$23.90	▲ 0.21%
Electronic Data Systems	EDS	\$24.88	\$25.91	\$26.54	2.43 %
Google	GOOG	\$426.82	\$492.47	\$467.16	▼ 5.14%
HP	HPQ	\$31.28	\$42.42	\$42.81	▲ 0.92%
IBM	IBM	\$81.63	\$98.54	\$100.38	▲ 1.87%
Intel	INTC	\$21.65	\$20.89	\$21.28	▲ 1.87%
McAfee	MFE	\$22.86	\$28.90	\$29.92	▲ 3.53%
Microsoft	MSFT	\$28	\$30.53	\$29.61	▼ 3.01%
Oracle	ORCL	\$12.61	\$17.27	\$17.16	▼ 0.64%
Red Hat Software	RHT	\$28.66	\$22.20	\$22.54	▲ 1.53%
Sun Microsystems	SUNW	\$4.37	\$6.35	\$6.64	▲ 4.57%
Symantec	SYMC	\$18.19	\$17.52	\$17.78	▲ 1.48%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions

BUYERS' GUIDE MARKET WATCH

Storage Security & Encryption

Securing The Most Valuable Asset: Data

by Sixto Ortiz Jr.

DATA SECURITY BREACHES are becoming way too commonplace: According to the Privacy Rights Clearinghouse, a nonprofit privacy watchdog organization, more than 100 million data records of U.S. residents have been compromised due to data security breaches. Stolen laptops, hacking, lost backup tapes, and disgruntled employees are some of the reasons so many privacy records belonging to so many individuals have been compromised.

The financial price of a data breach can be substantial, but the damage to an enterprise's reputation may be incalculable and take years to repair. Data center managers and administrators are looking for ways to secure their data and prevent it from falling into the wrong hands. So technologies that deliver storage security and encryption are gaining traction.

The Storage Security & Encryption Marketplace

In spite of the clear importance of securing enterprise data, survey results reveal many storage personnel still don't consider security a high priority. According to research conducted by the ESG (Enterprise Strategy Group), 47% of storage professionals surveyed said recently publicized data breaches had not pushed their organizations into undertaking new security activities.

But while almost half of surveyed respondents have not been pushed to action, 43% of respondents surveyed said recent data breaches had led their organizations to undertake new security activities. In its June 2005 report, ESG interpreted this result as signifying storage professionals are beginning to pay attention; ESG senior analyst Jon Oltsik says the data is encouraging.

And according to market research firm IDC, "Data encryption is set to go mainstream as governments and industry organizations hope to stem the flow of lost, stolen, or misused information hemorrhaging from today's enterprises." But IDC also finds many potential users are skeptical: 41% of survey respondents cited confidence in the recovery of encrypted data as a potential concern. So what approaches to storage data security and encryption are available?

MaXXan CipherMax

MaXXan's CipherMax SSAPs (Secure Storage Application Platforms) provide businesses with a centralized platform for delivering both encryption and SAN management functionality.

The CipherMax system delivers 256-bit AES encryption using ultra high-speed encryption engines that deliver equivalent performance to multiple encryption appliances. In terms of encryption key management, the CipherMax uses an automated process for key generation, storage, backup, restore, and archiving of keys using the KeyCruiser key management application. Keys are generated using a random number generator on the device itself; once generated, keys are moved to centralized storage.

The Web-based SANCruiser integrated application is for overall management and administration. Features include policy-based encryption, an inventory of network nodes, and graphical views of the SAN topology.

A key feature is the capability of the software to enable the creation of separate roles for security and storage administrators. Only administrators who have the proper creden-



SNAPSHOT

MaXXan CipherMax

About \$100,000 for starter bundle (system controller, one line encryption card, GUI, software component, and a fabric line card, plus associated parts and supplies)

Hardware-based encryption and SAN management in one appliance-based package

www.maxxan.com

tials can define security policies, manage encryption keys, or access security logs.

CRU-DataPort Encryption DataPort

The problem with encryption is it's often difficult for users to manage. CRU-Data-Port's Encryption DataPort hard drive enclosures provide encryption via an internal drive enclosure that installs easily into a PC or Mac 5.25-inch drive bay. Features include compatibility with IDE/ATA-6 and backward compatibility with older standards, hardware-based encryption, a cooling fan built into the drive enclosure that is regulated using temperature control, and a sound alarm that alerts when fan failure occurs.

The Encryption DataPort's 64-bit DES or 128-bit Triple DES algorithms encrypt the hard drive data contents as well as the boot sector, OS, and temp and swap files, providing encryption-based security for all drive contents.

Also, three different methods for security key management are available, depending on the number of users who will need access to storage drives and the level of control over the creation and management of keys desired. For example, a customer who wants complete control over the number of security keys available can order Master Security



SNAPSHOT

CRU-DataPort Encryption DataPort

Hard-drive-level encryption made easy

www.cru-dataport.com

Keys from CRU-DataPort to enable the inhouse programming of blank keys.

Decru DataFort E-Series Storage Security Appliances

Storage admins may be reasonably skeptical about the ease of integration of encryption solutions into infrastructures. Decru's DataFort E-Series Storage Security Appliances hope to remove these difficulties by easily fitting into existing storage infrastruc-



SNAPSHOT

Decru DataFort E-Series Storage Security Appliances

Transparent integration into existing storage hardware and software environment

www.Processor.com/Decru2

tures without the need for major changes to clients, servers, or even workflow.

The Decru DataFort appliances provide a variety of hardware-based data security services, including access control, authentication, storage encryption, and logging. The appliance features a Storage Encryption Processor, a wire-speed encryption and key management engine. Keys are generated using a True Random Number Generator and remain within the DataFort appliance throughout their useful lifetime.

The appliance integrates with typical directory servers such as LDAP and Active Directory and uses smart cards to control access by authorized DataPort administrators. The DataFort features an integrated VPN for securing data as it is transmitted and also includes a CryptoShred application for permanent description of keys and associated data.

Other features include a Lifetime Key Management system for automated key archiving and recovery, compartmentalization of data encryption, AES-256 encryption, National Institute of Standards and Technology validation for compliance with FIPS 140-2 level 3, and certification of the DataFort's AES-256, SHA-512, and SHA-256 implementations.

NeoScale CryptoStor KeyVault

NeoScale's CryptoStor KeyVault is another example of an appliance-based key management system. The device provides a whole array of key and policy management services, including creation, distribution, archiving, sharing, recovery, and deletion of encryption keys. The CryptoStor's FIPS 140-2 Level 3

SNAPSHOT

NeoScale CryptoStor KeyVault

Open APIs enable interoperability and integration with other products

www.neoscale.com

compliance of the hardware, software, firmware, and user operation ensures all aspects of the hardware are properly secured.

One key feature is NeoScale's development of published APIs (application program interfaces) to ensure easy integration with other third-party devices and/or applications. The company maintains a Developer's Site through NeoScale's Storage Security Portal and provides materials such as sample code, technical references and briefs, and other documents to ease interoperability.

Another feature is the use of Trust Relationships for automation of key management decisions. Essentially, this feature allows security administrators to decide one time how keys will be distributed and made available to users; once this decision is made, key distribution is automated to eliminate human involvement.

Vormetric CoreGuard Information Protection System

One of the key advantages of the Core-Guard Information Protection System that Vormetric emphasizes is the system's MetaClear approach to data encryption. CoreGuard's encryption engine encrypts a file's data while maintaining application access to the file's metadata. In a nutshell, the MetaClear encryption approach leaves the file metadata accessible by only encrypting the data contents and not the entire file. Other encryption approaches, because they encrypt the entire file, must decrypt both metadata and file data in order to allow access to the file metadata by applications.

The Vormetric system is divided into two tiers: software PEMs (Policy Enforcement Modules) that reside on protected hosts and a CoreGuard Security Server "appliance cluster." The PEMs are used to enforce application and host integrity policies,

SNAPSHOT

Vormetric CoreGuard Information Protection System

Unique MetaClear approach ensures file metadata is visible to applications that need to access it

www.vormetric.com

while the Security Server functions as the storage and management point for encryption keys and data access policies. Other features include host and application integrity protection using cryptographic fingerprints to maintain a database of proper configuration images and data file access granting after validation using a "who, what, where, when, and how" approach.

Keep Out The Bad Guys

The cost of data breaches is too high for storage administrators to do nothing to protect their data. Centralized data storage is a boon, but it also provides digital criminals with a very tempting target. These approaches to security and encryption—and others—can help you lock down your storage infrastructure and keep data thieves at bay.

Buying Tips

Here are some tips for what to look for when prospecting for storage security and encryption products.

Ease of installation. Be sure whatever solution you purchase fits easily and seamlessly into your environment. Appliance-based solutions appear to fill this bill nicely.

Ease of use. Difficult-to-manage products are a headache and can leave you vulnerable. Certifications. Look for encryption algorithm implementations that are validated/certified by the National Institute of Standards and Technology.

Reporting and logging. Logs and reports may be critical for regulatory compliance, so look at these features closely.

Automation. Products that provide plenty of automation can help you reduce human errors, but be sure there is plenty of administrative flexibility to ensure control.

Encryption key availability. If you need to decrypt data during a disaster or emergency, keys must be readily available to make this happen.

To see *Processor* Showcase advertisements for products in this category, look online at www.Processor.com and find the Security & Encryption ads under End Nodes/Storage.

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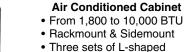
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Reduce Telecommuting Costs

Keep Expenses Down When Employees Unplug From The Office

by Elizabeth Millard

WITH THE BREADTH of wireless devices and the availability of broadband, telecommuting has gone from an occasional perk to a standard benefit. But that freedom comes at a price for IT departments, which have to make sure security is in place, employees follow policies, and support is available.

Market research firm Gartner reports that companies with a high number of teleworkers could see the cost of telecommuting increase fivefold, thanks in large part to having to maintain security and regulation compliance. Added to those expenses are the other costs, such as regular tech support, which can add up in a hurry.

A small to midsized enterprise might be tempted to just call its employees into the office, but there are some ways to offer telework without busting the budget.

Direct Traffic Through A Managed Service

Some companies depend on a service, such as that offered by Fiberlink (www.fiber link.com) or Positive Networks (www.posi tivenetworks.com), for remote access. By channeling traffic through a managed provider, an SME can get built-in support, security features, and even tech help, says Michael Yim, Positive Networks' vice president of marketing.

"Often there are the hard costs, like equipment, but it's hard to predict the soft costs that come with telecommuting," Yim says. "The question of support can be a big one,

since more teleworkers might lead to hiring help desk staff. With outsourcing, you don't have to worry because support is included in the user license."

Managed providers often offer training, as well, that can range from Webinars to onsite education for their software applications. Although it might seem like an added expense to outsource remote access services, Yim notes that the cost usually works out to about \$10 to \$15 per employee, per month. Considering how much time complicated support calls and possible in-home tech visits can take for IT staff, in many cases a company will find it's saving money with outsourcing, Yim says.

Centralize Device Management

If teleworkers are more reliant on devices than on laptops and home-based networking, SMEs should take a look at managed mobility, which can reduce the total cost of wireless ownership, according to Forrester Research.

Organizations such as Integrated Mobile (www.integratedmobileinc.com) and HP's Managed Mobility (www.hp.com) can help customers centralize management of wireless devices, implement application recovery, and



even push out software patches and security updates automatically.

Much like Positive Networks and other types of managed services, expenses come in the form of per-user monthly costs, but the benefit of paying by the user is that an SME can scale up or down quickly as needed. For companies that have frequent staff fluctuations—such as those industries tied to seasonal cycles or those that employ many temporary workers or interns—the option to manage devices without being locked into a long-term contract can save money in the long run.

Take Advantage Of Employee-Owned Equipment

There are a number of advantages to handing out laptops and PDAs to employees who want to telecommute, including hardware and device standardization, more streamlined support, and stronger security. But if teleworkers already have their own laptops and desktops, it can be overkill to hand out more hardware. A better option might be to send an IT department member to an employee's home or have the staffer bring in the laptop to make sure proper security measures are in place.

The arrangement can be tricky and can take more care and feeding than simply having the company own the equipment, experts note. But when staff numbers are on the

smaller side, it can be beneficial to reimburse employees for hardware based on how much they use it for professional tasks.

In terms of security, there are a number of VPN products from companies such as D-Link (www.dlink.com) and others that handle threat management, content filtering, and firewall issues. What's important when bringing employee-owned machines into the support picture is that the computers don't vary too widely in terms of age and system requirements.

"You don't want each telecommuter with a hodgepodge of controls and hardware and

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applications," says George Cravens, D-Link technical marketing engineer. "Many small companies start out that way but then start to cringe when they have to manage it all." Standardizing by using a single VPN product can fill in many technical gaps with different equipment, he adds.

Consider Leasing Instead Of Buying

For companies that prefer to have more standardized hardware, leasing laptops and other equipment can be beneficial, especially if the company tends to upgrade its machines frequently. Lessors build hardware support and repair into their contracts, which alleviates IT support costs, and there's an added bonus of minimizing equipment disposal costs.

Adam Braunstein, senior research analyst at consulting firm Robert Frances Group (www.rfgonline.com), says organizations maximize the value of hardware in about three years. After that, he says, the hardware begins to break down gradually, leading to more maintenance and repair costs.

IT departments can also benefit from frequent laptop turnover because leased machines are usually newer and have more up-to-date operating systems and applications. The strategy may not work well for companies that have numerous customized applications or tend to buy the leased laptops after a few years. But Braunstein recommends taking a look at total cost of ownership projections and at least considering the strategy. \square

Telecommuting-Friendly Products

Thanks to the surge in telecommuting in the past decade, many companies have come out with products specifically geared toward helping employees stay secure while connecting with the mother ship.

Product	Description	Web Site
D-Link NetDefend	Secured by Check Point, this line of firewall and VPN appliances has unified threat management while securing remote access; geared toward telecommuters, the products provide secure LAN access using a highly secure IPSec VPN protocol	www.dlink.com
Juniper Networks SSL VPN	A single platform for employee remote access, this appliance has endpoint security, granular access control, and a new coordinated threat control feature	www.juniper.net
Lancope StealthWatch IDentity-1000	Automates user identification, streamlines remediation efforts, and offers auditing for regulatory compliance; a management console is available to tie together all the StealthWatch products for more streamlined coordination of the appliances	www.lancope.com

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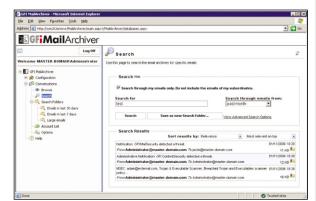
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Options

Ensure Your Wi-Fi Connection Is Safe

Wireless Insecurity Can Cause Monumental Problems

by Chris Jackson

WIRELESS NETWORKS are a boon for users who need easy-to-access Internet connectivity. Whether you're working out of a local coffee house or trying to retrieve email while waiting for your flight to depart, Wi-Fi hotspots are an affordable way to stay connected. Yet many hotspots expose users to unnecessary risks due to inadequately protected access points. Fortunately, securing your connection doesn't take a degree in electrical engineering; a flood of vendors are at the ready with products that can help mitigate the risks posed when using Wi-Fi.

Here Lurk Monsters

Despite Wi-Fi's widespread popularity, many Wi-Fi installations are insecure either configured with out-of-date security protocols, configured improperly, or consciously implemented with no security at all. Wi-Fi signals can be received at ranges that would astonish the original Wi-Fi developers. This means that the signals your laptop sends and receives need to be protected. Otherwise, users risk exposing passwords from email accounts, surfing history, and other compromises of personal and company data. So what can your SME do to ensure it has secure Wi-Fi connections?

Secure your access points. If your business has implemented a Wi-Fi system, be sure that you're using the latest security

options. Although many Wi-Fi systems use WEP (Wired Equivalent Privacy), George Craven, technical marketing engineer at D-Link (www.dlink.com), says, "WPA2-Enterprise is by far the best solution, since individual logins are used, so changes/ updates are very easy (for example, if an employee leaves or

loses their password), and changes only affect the users that need them."

Users working from home also need to be concerned about their wireless networks. Although most home access points don't support WPA2-Enterprise, according to Craven, "WPA2-Personal, using a preshared key (PSK), provides a very secure solution."

Secure your connection. For users with no control over the Wi-Fi hotspots they access, users should use VPN (virtual private network) software to protect their network traffic. According to Aston Fallen, CEO of Steganos (www.steganos.com), "With secure VPN services such as this, users can download and send email, access files on the corporate network, and engage in instant message, chat, blogs, and auctions,

confident that all passwords, messages, and data are protected from interception."

By using a VPN to access the Internet, it's irrelevant whether the Wi-Fi hotspot is insecure: All of your traffic is encrypted between your notebook and the VPN endpoint. VPNs used to be the province of large corporations but now have become widespread for personal use, as well.

Consider using portable VPNs. The new breed of VPNs isn't designed to grant users access to confidential corporate data. Instead, these VPNs are designed with the mobile user in mind. Users typically connect to the local Wi-Fi hotspot and then initiate a connection to a VPN provider such as Steganos. Once connected to Steganos' VPN system, all of the user's Internet traffic is routed through the Steganos system.

Steganos' Fallen says, "This encrypts Internet connections at Wi-Fi hotspots so that personal and corporate data is always secure. It enables mobile and home workers to securely connect to their employers' networks and prevents ISPs, hotspot providers, and hackers from accessing data being sent or received over this secure link."

When connected to third-party VPN systems, it's important to remember that the vendor has the potential to monitor your traffic. In effect, third-party VPN vendors proxy your connection securely; the question then becomes, how much can you trust your traffic to these vendors? Before using any of these services, it's important to perform due diligence on the vendor to be sure that it's a reputable provider.

Implement fundamental security. In addition to locking down access points and

using VPN connections, it's important not to forget fundamental computer security. Viruses, hackers, and malicious Web sites still pose a threat to your notebook when connected via VPN. According to D-Link's Craven, "For general Web access/browsing, users should be sure to check that they are using a secure connection in their browser for anything sensitive (online purchases, etc.). Finally, be sure to have a reputable and fully updated firewall/security suite running."

> Ignore at your peril. Many users and businesses have treated Wi-Fi security in a laissez-faire manner. As long as the corporate network was protected, security was left up to the end users. However, in the age of regulatory compliance, the legal and public relations risks can be tremendous. SonicWALL's (www.sonicwall.com) Director of Public Relations Mary McEvoy says, "Unsecured Wi-Fi usage can lead to all kinds of problems from identity theft to noncompliance

with HIPAA, SOX, or other regulations."

Steganos' Fallen agrees. "At the same time, it's not just a question of information being accessed and data stolen; it's not unknown for hackers to also use unsecured wireless networks to store their files. If you own a business and some questionable files are found on your network, then your business is liable, regardless of how someone may have put the files there."

Berkeley Varitronics Systems Firefly A sophisticated 802.11b/a/g, FHSS, and Bluetooth Wi-Fi analyzer that helps IT managers maintain network throughput and security by recognizing and identifying

abnormalities in network traffic www.Processor.com/BVSystems20

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www.Processor.com/XRoads3

VPN Software

Small to midsized enterprises may turn to products such as the ones below if they are unable to or choose not to deploy their own VPNs (virtual private networks).

Product	Price	URL
JiWire Hotspot Helper	\$24.95 per year	www.jiwire.com
Steganos Secure VPN	\$299 (one-year license, five clients)	www.steganos.com
WiFiConsulting HotSpotVPN	\$13.88 per month	www.hotspotvpn.com
WiTopia personalVPN	\$39.99	www.witopia.net

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Notebook Tracking, Recovery & Data Protection

Don't Leave The Enterprise Without It

by Chris A. MacKinnon

TO THE ENTERPRISE, the data being carried on a company laptop is like precious cargo, not to mention the laptop itself. According to Symantec (www.symantec.com), a laptop is stolen every 53 seconds in the United States, and according to the FBI, an astounding 98% of them are never recovered. With those odds, and the recurring wave of high-profile notebook thefts, notebook tracking and recovery and advanced data protection are clearly not getting the attention they deserve.

The Statistics

Jason Roberts, marketing manager for PC Guardian, says the statistics he sees show the growth of computer theft at 20% a year. "These thefts," he says, "have resulted in all sorts of data and identity theft issues that have spawned state and federal legislation to protect consumers. Unfortunately, it takes actual thefts, as well as legislation, to get some companies to react."

Eric Skinner, vice president of product management at Entrust, says many companies are reacting to the wave of news stories about lost laptops by encrypting the data on them, but the majority, he says, are still doing nothing. Skinner says, "I think that it's still not widely understood how easily laptop encryption can be rolled out. It's one of the most invisible and deployable security solutions you can find. Unlike lots of other security tools that require users to take special steps or impact the user experience, laptop encryption is invisible."

Entrust's Entelligence Disk Security is one example of a laptop/desktop data encryption solution that protects data through full disk encryption, authorization, and strong user authentication. Another popular laptop encryption software, ComputraceComplete, manufactured by Absolute Software, promotes theft deterrent by locating a laptop, monitoring its use, and noting what hardware and software changes are being made.



John Livingston, CEO for Absolute Software, says the issue is definitely not getting the attention it deserves. He says, "This is due to a number of key factors. First, the focus has been primarily on how to deal with the symptoms of a security breach once it has occurred instead of the root cause of the problem—theft. Second, many companies try to use traditional IT asset management systems to safeguard remote and mobile computers."

Livingston says these systems aren't very good at tracking mobile assets. He notes that they can usually tell what is on a system but are unable to correlate that information to where the system is or who is using it. He says the ability to do this is paramount for effective data protection and regulatory compliance. "Most current regulations do not require public notice of theft or data loss if the data is encrypted, so it's a simple stop-gap measurement that many companies are implementing. Education is another critical factor; people don't know all the solutions available to them and what best practices to employ."

Livingston says if a laptop is stolen, the ramifications of a company security breach can be disastrous. He notes, "The legal and financial implications of a security breach could cost significantly more than the dollars required for preventative solutions. Corporations are just beginning to realize how these occurrences could damage their reputation, revenue, and public trust."

Roberts notes that a Ponemon Institute study done last year found the average cost to a company experiencing data breach from a stolen computer (or network breach), to be about \$5 million in direct costs. He says, "Costs can include notifying victims, staffing hotlines, hiring public relations firms to manage inquiries, paying for affected customers to have their credit monitored, and damage to company reputations."

The Protection

With these things in mind, small to midsized enterprises can put policies and procedures in place to make sure their notebooks

are tracked and secured and easier to recover. But Skinner says companies can't rely on employees to take manual steps to protect sensitive data. He says, "An automatic, invisible solution such as full disk encryption is the only way to get provable compliance. We've seen a lot of companies try to solve the data breach problem by educating users and setting security policy, but the bottom line is that it doesn't work. Users make mistakes, and manual steps get in the way of the real work that needs to be done. The easiest way to ensure that all laptop data is encrypted is to roll out disk encryption and use a proven vendor that provides central audit and reporting."

Livingston says enterprises must take a 360-degree approach to ensure that their mobile computers are tracked and secured. He says, "In the event of security breach, it's imperative to have the tools for recov-

ery of the device and/or the data. This approach involves a combination of policy, people, and products. Absolute Software has outlined Corporate Best Practices to address this exact issue."

Absolute Software's best practices consist of a combination of written policies, business processes, and technology. Some of these best practices include documenting common-sense guidelines on device security and laptop use; mandating data protection on local, mobile, and remote devices; and protecting all laptops and mobile devices.

From PC Guardian's perspective, Roberts says to believe in preventive measures first. He says, "Small to medium-sized companies need to start thinking like big companies and have an overall security policy, the staff in place to enforce it, and cross-

departmental plans in place to react quickly should a theft or data breach occur. Like any theft, the sooner you react, the better your chances are for recovery."

Roberts says policies that require everyone to lock down his computer, no matter
where he is, should be the easiest and least
expensive first layer of security to implement. "Once users get in the habit," he
says, "it becomes second nature. And yes,
companies should have their machines
tagged and hard drives encrypted to help
track the system and protect the data
should one get stolen. The more important
the data on the system, the more layers of
security are needed." Roberts says PC
Guardian's task is to make the physical
security layer of that overall policy as
seamless as possible.

Roberts adds, "Some companies think that if their laptops are password-protected and hard drives encrypted, they are protected. But thieves are very clever at bypassing some of these safeguards." He continues, "With the rapid growth in Wi-Fi networks, inexpensive laptop computers, and fewer employees required to maintain 9 to 5 office hours, we have an increasingly mobile computing workforce that presents new security challenges for IT managers. Workers take their laptops everywhere and, in addition to the network security issues, computer theft is an issue. So now other industries besides the obvious ones (banking, insurance, and healthcare) are enforcing antitheft security measures."

Tools For Protecting Your Notebook

Product	Description	URL
Absolute ComputraceComplete	A small, stealthy, and tamper-resistant client application that reports detailed information using minimal bandwidth; the laptop reports changes in asset information on a daily basis, regardless of its location	www.absolute.com
The CyberAngel	A comprehensive IT security solution (for laptops, desktops, and tablets) that includes unique hardware tracking and recovery and data protection; the CyberAngel's patented technology silently transmits an alert to the company's Security Monitoring Center and identifies the location from which the computer is calling	www.thecyberangel.com
Entrust Entelligence Disk Security	Provides comprehensive laptop and desktop security capabilities that can automatically protect the entire contents of a hard disk from unauthorized access through full disk encryption	www.entrust.com
PC Guardian Ezolution Classic	A lightweight, easy-to-use lock and key security option for laptops and office equipment with security slots	www.pcguardian.com

SPONSORED LINKS

CenturionSoft's ViPNet SafeDisk

Provides transparent encryption for your notebook, desktop, or handheld computer www.Processor.com/SafeDisk

Cyber Angel Security Solutions
Provides data recovery, tracking, and
encryption for your mobile devices
www.Processor.com/CyberAngel

Mobile Support Update

Continued from Page 1

Consider this: If your employee can't use email on a laptop tethered to a 3G phone, where do you pinpoint the problem? Is it the cell phone, the tether, Outlook, Exchange, the 3G network, or the user? If it's the network, which you neither own nor control, there's little for you to fix.

Convergence 101

Of course, speed is useless without a device that can harness it. Enter the "converged device," in which voice, data, and video live under one roof (and a roof that can fit in your pocket). Smartphones are prime examples. And even smart cell phones—which offer data features without the full-blown OS from Palm (www.palm.com), Microsoft (www.microsoft.com), or RIM (www.rim.com)—will pick up email, send a text message, or surf the Web.

Sadly, even the best smartphones suffer from a complex interface, which in turn gives support teams a headache. "Ease of use is important," says Sean Ryan, a handset expert with IDC. According to Ryan, IT departments need to consider what end users will truly use before they open their wallets. "It's like any IT deployment," he says. "You can't say, 'If you build it, they

will come,' or else you just kind of throw a bunch of money away."

Thanks to recent trends, you can buy a low-end smartphone for less than \$200. High-end, enterprise-class tools can still cost north of \$400. "These converged devices are not cheap," says Ryan.

Convergence 911

And because each person has his own preference—RIM for the CFO; Palm for the CEO; and for the sales force, T-Mobile's MDA with its slide-out keyboard and Windows Mobile interface—many workers buy their own smartphones and expect the IT department to support them. Info-Tech's Tauschek calls them rogue devices, a device that "somebody buys and brings into your IT environment—and into your network—that you don't have any control over."

You can, of course, refuse to support a rogue device, and some companies do. Tauschek notes that many companies first analyze the options to see what costs more: paying for smartphones or letting employees buy their own and paying the soft costs of more complex support. "Very few IT support functions will say 'Yeah, you know what, we'll support RIM, we'll support Palm, we'll support Windows Mobile. If you have your

own laptop, we'll support that. If you have your own PC at home, we'll support that.' It's just too much," says Tauschek.

Data At Risk

"If somebody loses their device, if it's stolen, what happens then?" asks IDC's Ryan. In today's environment, losing a smartphone can mean a loss far greater than \$500; you can lose vital customer data and even run afoul of HIPAA or disclosure laws such as California's SB 1386.

Products from companies such as Good Technology (www.good.com; recently purchased by Motorola) put AES encryption, remote data kill, and remote password policy enforcement on smartphones. But mobile support entails far more than data safety. "It also encompasses the management aspect," says Ryan. "How old are these devices? Do we need to refresh any of them? Do they support the applications that we deploy over the next six to 12 months? I think that's really key."

One solution is software such as LAN-Desk's Handheld and Embedded Device Manager (www.landesk.com), which lets IT groups automate handheld discovery, asset management, and patch management, as does the Altiris Handheld Management Suite (www.altiris.com).

"Other device vendors are working on over-the-air software uploads, too," says Ryan. And networks such as Cingular have long offered high-end business solutions to assist IT groups in managing and supporting the remote workforce.

The bottom line? Today's mobile support is tough, to say the least. But problems don't mean perdition. Releasing workers from their cubicles has its benefits. Take mobile VoIP, which lets workers take their softphones or VoIP phones home—and take their extensions with them. Customers who call your main line can simply dial an extension and connect over LANs and

Direct Push vs. BlackBerry

For years, BlackBerry (www.rim.com) was the only push email game in town. But Microsoft (www.microsoft.com) has entered the fray with Direct Push for Exchange.

Which is better? According to a study by Rysavy Research (a study sponsored by RIM), BlackBerry's Enterprise Server delivers push email more efficiently. That can mean less bandwidth, which in turn can mean a lower bill from cell providers.

But there's more to it than mere performance. Remember that Microsoft's platform offers users software they already know how to use. And Direct Push does force you to add a new server to your data center.

WANs to an employee's phone, no matter where he is, without even knowing it.

That opens borders, which in turn promotes business. "The way that I look at it is the edge of the network is no longer within the confines of the enterprise space," says Tauschek. "The edge of the network is the world, really."

SPONSORED LINKS

Altiris Handheld Management Suite

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www.Processor.com/Altiris5

Northwest Performance Software ipPulse
Use ipPulse to monitor the up/down status
of IP-connected devices (nodes) on any IPconnected network

www.Processor.com/NWPSW3

In The News

Last year was a big year for road rogues.

Among the most newsworthy items was a recall of Sony (www.sony.com) batteries in nearly every major laptop brand, a problem that in the extreme caused some batteries to explode.

Smartphones got cheaper, too, as smartphone makers tried to draw consumers into

(www.rim.com), with its lustrous trackball and sleek, tiny case, was a bellwether. Samsung's BlackJack (www.samsung.com) and Motorola's Q (www.motorola.com) added to the parade. The bottom line is big news: Smartphones—and data access—are getting

a business-only market. BlackBerry's Pearl

Better Understanding Your Data Center

Continued from Page 1

According to Izzo, matching to the future state requires realizing trends and the growth curve of your data center. He says, "SMBs are going to have a bit more of a difficult time in predicting their future." Thus, SMEs need to align the IT department with the business to best gauge the future. The first step to making this alignment is to open a dialogue with the business side that uses IT's applications and plan for how IT can support the growth of the business.

Today's higher density of equipment in the same data center space spells one of the greater challenges to better understanding data center dynamics, including electricity, heating, and cooling.

Sam Rizzo, vice president of facilities engineering for SunGard Availability Services (www.availability.sungard.com), a leading provider of information availability services, also emphasizes managing changes in the data center because the rise of infrastructure costs can offset productivity cost savings. This means that as you can fit more equipment into the same space, the costs to power and cool are going to rise incrementally.

There are tools available for better understanding the heating, cooling, and related infrastructure of the corporate data center, including network modeling tools such as OPNET ACE (Application Characterization Environment; www.opnet.com) and CFD (Computational Fluid Dynamics) modeling tools such as Fluent FloWizard (www.flu ent.com), which can provide insightful models and simulations of your network and facilities environment. However, these tools require a large expense of both money and learning curve to get up and running.

Moreover, Izzo notes, "The data coming out is as good as the data going in," which speaks to the niche these tools hold that put them out of reach for the average SME because it lacks the domain expertise to exploit the power of these modeling tools to support building out the data center.

If analyzing the current state of your data center is outside your data center team's current resources, then outside consultants such as Syska Hennessy Group or a local consultancy can help establish a benchmark for your data center and help determine gaps in your data center, including costs for new technologies. Syska Hennessy Group uses a "critical facilities balance sheet" when surveying a customer's data center. The sheet includes industry benchmarks for electrical power, cooling, and infrastructure, and consultants use the sheet to understand gaps in the data center, which when remedied can heighten overall data center reliability. You can create your own critical facilities balance sheet by researching some of the standard metrics in your industry and rounding out the balance sheet with your own internal goals and benchmarks.

Due Diligence, Analysis & Your Data Center Dynamics

"It all starts and stops with electricity," according to Sungard's Rizzo, who stresses how important it is that data center managers understand how electricity from their local power substations feeds into their data centers to the plugs on the racks. This holistic view of electricity is integral to understanding the interrelationship of your power and cooling requirements by determining how power is deliv-

ered into your facility, including capacity and reliability.

While you and your data center staff can find better understanding of your data center dynamics through capturing pictures of the data center's current state and its future state, your analysis and due diligence need to consider data center design for the actual technology being installed and planned, power and cooling scenarios for steady state and recovery, modular planning for future cooling and power capacity, and the density vs. floor space cost trade-off for your environment. Collaborating with your facilities staff and building management can draw together building schematics, an audit trail of utilities spending, and network/server rack build out documentation that can paint a picture of your current data center, including the facility. You can then add in future technology and growth requirements to estimate the future state of your data center.

Rizzo recommends the establishment of a best practices team that brings together stakeholders from IT, applications development, and facilities to better manage data center growth and change. However, he is quick to point out that such a cross-functional team needs executive-level sponsorship at its chartering to be effective dealing with data center growth and changes.

Analyzing & Communicating Your Data Center Dynamics

You need to communicate to management your understanding of the data center and facilities like a balance sheet by spelling out the potential dollars lost to data center time broken down by the hour. You should include any service-level agreement financial penalties and estimations of direct revenue lost for scenarios where clients can't access systems and client communications are cut so business transactions halt. Indirect costs due to customer dissatisfaction should

also be on this balance sheet. Acceptable risk is another topic of conversation with the business side and gives an underlying theme of mission-critical IT being in lockstep with the mission-critical business.

While a software solution may be out of reach for some SMEs for better grasping data center dynamics—due diligence, aligning the data center/IT growth plans with the business, and developing co-efficiencies can turn a better understanding of data center dynamics into cost savings.

Data Center Dynamics Analysis Tools

BladeLogic Operations Manager www.bladelogic.com

BladeLogic Operations Manager automates the entire data center life cycle, including inventory, provisioning, configuration/change control, and continual compliance.

OPNET IT Guru Network Planner

www.opnet.com

OPNET IT Guru Network Planner models the behavior of the network end-to-end, including routers, switches, servers, and the individual applications within a data center and/or corporate network.

RACKWISE Standard Edition Service for Visio

www.rackwise.com

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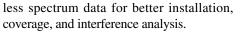


WIRELESS FEBRUARY 2, 2007

Better Wireless Networks

BumbleBee-TABLET Provides Clear Installation, Coverage & Interference Analysis

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BumbleBee-TABLET is a Windows XP-based tablet UMPC spectrum analyzer. The calibrated receiver can measure the popular wireless bands, including Wi-Fi, WiMAX, and Bluetooth. A 2.4GHz or 5GHz directional corner reflector makes tracking interference sources easy.

BumbleBee-TABLET includes a 7-inch WVGA LCD touchscreen and an Intel

processor. A 40GB hard drive lets you store and play back captured radio frequency spectral network installation, coverage, and interference data in the field. Advanced spectrum analysis features include user-selectable power triggers, three pairs of markers, spectrogram, histogram, video smoothing, waveform averaging, and one live trace and up to four peak hold waveform traces with peak hold and peak search.

Optional Honeycomb Interference Mapping Windows XP software can be run right on BumbleBee-TABLET hardware while still in the field or later as a desktop application. The Honeycomb software consists of three parts: Projector, Collector, and Analyzer. Sources of interference can be separated from 802.11 WLAN signals, allowing the user to graph severity of interference, percentage of channel capacity

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HVAC

■ APC announced the availability of its InfraStruXure InRow RP, which places cooling next to the heat source, providing predictable, dynamic heat removal for medium-, high-, and ultra high-density deployments. APC's InRow RP is available in chilled water- (up to 70kW) and refrigerant-based (up to 37kW) designs. The architecture has variable airflow capability to lower operating costs by reducing energy consumption during partial load conditions. An integrated humidifier provides room-level moisture control, and additional moisture control is provided through a dedicated dehumidification cycle and standard reheat coil to prevent overcooling during dehumidification.

COMMUNICATIONS

Application Networking

■ F5 announced an updated software and hardware platform for application delivery. The BIG-IP 8800 attempts to offer high performance at a low TCO, and with version 9.4 of the BIG-IP software, the 8800 is more

than twice as fast at processing such Level 7 traffic as SSL and compression, F5 says.

Security

- Fortinet released the FortiGate-224B, a new unified security and networking platform that implements security policies at the network access layer in an attempt to ward against viruses, worms, DoS attacks, blended threats, and intrusion efforts. The clientless system offers 4.4Gbps Layer 2 switch speeds, 150Mbps firewall speeds, 24 10/100Mbps switch ports, two Gigabit switch ports, and two 10/100Mbps WAN ports.
- NetworkStreaming released a new security and compliance remote desktop support appliance, the SupportDesk 9.1. The appliance has several new features, including remote support for Macs and an auditable log of session recordings. Additionally, SupportDesk offers better configuration of administrator rights and group permissions in the LDAP schema and can integrate into help desk ticketing systems.

Video

■ Tandberg released Experia, a new videoconferencing offering that, according

to Tandberg, can adapt to diverse environments and work with other standards-based video systems, which should broaden videoconferencing's appeal. The company says that Experia offers high-definition video and one-touch connectivity while requiring relatively little bandwidth.

END NODES

KVM & Console Access

■ ATEN announced two new rackmount CAT 5 KVM switches, the KH1508 and KH1516. Designed for small and mediumsized server rooms and data centers, the KH1508 is a \$399.95 8-port model, while the KH1516 is a 16-port model running \$499.95. Each model uses daisy-chain technology to access up to 256 and 512 computers, respectively, when connected to 31 additional units. Both models also offer remote management capability for servers and data center components when used with ATEN's CN5000 KVM on the NET control unit. ATEN says the switches were designed to eliminate typical cable management problems while offering extended-distance abilities up to 130 feet from a singleuser KVM. Both units can maintain a 1,600 x 1,200 monitor resolution via CAT 5 cable when within 100 feet from the CPU.

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■ Minicom Advanced Systems announced IP Control, a very small, compact KVM IP Gateway designed for remote support. With IP Control, a system administrator can set BIOS-level access and control operations for the remote systems within the company. All of the configurations are manageable through a Web-based interface. The gateway incorporates KVM technology and is ideal for remote applications managed and operated from a central control room.

Mobile

■ Gateway introduced the customizable Gateway DX430 Series and NX270S notebook. The DX430 Series can be configured with Windows Vista Home Basic, Home Premium, or Ultimate and can be customized with a range of Intel processors and hard drives, including 750GB perpendicular drives or Western Digital Raptor 150GB 10,000rpm drives, and users can configure the DX430 with RAID 0 or 1. The NX270S notebook has an ultra-bright 14.1-inch WXGA widescreen display, an Intel Celeron

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Bringing Wi-Fi Phones
To The Enterprise

New Handsets Support 802.11a/b/g, PBX Features & Office Usage

by Daniel P. Dern

ONE CHALLENGE FOR enterprises looking to provide wireless voice in their facilities using a combination of Wi-Fi and VoIP has been that available Wi-Fi handsets have been consumer-oriented.

"An enterprise phone is part of an enterprise infrastructure," states Craig Mathias, principal with the mobile and wireless advisory firm Farpoint Group. "It's designed for day-in, day-out rugged duty and has to integrate with the rest of a company's telecom architecture and the company network in general. Consumer Wi-Fi phones are for Skype [www.skype.com] and other individual uses. They're standalone devices; they won't work with your PBX [private branch exchange]; and they tend to be 802.11b only vs. a/b/g."

For use in Wi-Fi/VoIP enterprise environments, SpectraLink announced its

NetLink 8000 Series Wireless Telephones, including models 8020 and 8030. The handsets range in weight from 3.9 to 4.8 ounces, depending on the handset model and battery pack. Both models are scheduled to be shipped in the first quarter with a list price of \$595 for the 8020 and \$675 for the 8030.

"A high-end VoIP deskset phone from someone like Cisco [www.cisco.com], Nortel [www.nortel.com], or Avaya [www.avaya.com] can cost around \$400," notes Ben Guderian, vice president of marketing at SpectraLink. "We have all the buttons, softkeys, and navigation, so business users can access PBX features like voicemail, forwarding, and conferencing."

The NetLink 8000 Series handsets support 802.11a/b/g and are the first commercially available, enterprise-grade handsets to do so, according to SpectraLink. "802.11a uses the 5GHz band, where more spectrum



SNAPSHOT

SpectraLink NetLink 8000 Series Wireless Telephones

NetLink 8020: \$595 NetLink 8030: \$675

Handsets with the features, durability, and power options needed for enterprise use that consumer "Wi-Fone handsets" lack

www.spectralink.com

is likely to be available for use," says Guderian, "and 802.11a has more channels in it, which makes it easier to deploy."

The 8030 also includes 24 PTT (push-to-talk) channels and a priority channel, which can be used for emergency broadcasting.

The NetLink phone handsets should work with "just about any enterprise Wi-Fi, like Cisco, Symbol [www.symbol.com; recently acquired by Motorola], Aruba [www.aruba networks.com], and Meru [www.meru networks.com]," says Guderian. In terms of PBX support, he says, "Our NetLink Telephony Gateway ties to most large PBXes, including analog, and for IP PBXes, we can support SIP [Session Initiated Protocol] and also some proprietary protocols, such as for Nortel, Avaya, and Alcatel [www.alcatel.com]—they resell our products branded with their sets."

Markets for the new wireless phones, Guderian says, include "health care and other markets, retailers, big home-improvement chains, along with hotel/hospitality and places like semiconductor clean rooms, where employees need to be in touch."

In terms of competition, "Cisco has their own 802.11b handset, the 7920," says SpectraLink's Guderian. "We focus on interoperability with PBXes and Wi-Fi gear; Cisco is mostly making a handset for use on Cisco networks, and they don't currently offer push-to-talk. And there are consumer-grade handsets, but they don't fit well in enterprise markets."

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Product Releases

Continued from Page 15
430 processor, 512MB of memory, a 60GB hard drive, and a CD-RW/DVD combo drive, and it comes with Vista Home Basic.

■ Psion Teklogix introduced the Windows XP-based 8580 and 8590 Vehicle-Mount computers. Both are designed for use in harsh conditions, are based on the XTX processor board standard, and are compatible with Psion Teklogix's wireless backbone and mobile devices and with other WLAN products. The 8580 and 8590 can withstand outdoor conditions, as well as extreme temperatures, and run either Windows XP Pro or Embedded.

Printer

■ A new industrial, electrical, and network labeler is available from **Panduit**. The Cougar LS9 Hand-Held Thermal Transfer Printer can use a broad range of continuous, tear-apart label media contained in P1 Label Cassettes. Its integrated memory can store formatting info, as well as remember the last legend it printed and the number of labels left inside.

Server

■ NextComputing is targeting the military and aerospace industries with the latest enhancements to its 4U blade server. The NextServer now has 400Hz 100V-230V input power and 110/200V 50/60Hz support; features hot-swap capabilities; and includes AMD Opteron processors (up to 32 cores) or Intel processors (up to 16 cores) and dual 2.5-inch IDE hard drives to 320GB per blade, as well as two Gigabit ports and a PCI-X half-length slot.

Storage

■ Dynamic Network Factory introduced HSS (Hyper Solid State) disk drive technology, which the company says is a new energy-efficient disk storage technology that delivers up to 20 times the drive performance as 15,000rpm enterprise-class SAS, SCSI, and Fibre Channel drives. DNF will offer the technology in 120GB configurations across its full product line. Additionally, 200GB models are expected this spring. HSS, which uses standard drive technology with RAM to maximize performance and energy efficiency, fits into 3.5-inch drive bays and uses the SATA interface. Each HSS disk includes battery-

backed cache at the drive level as a prevention step against power failures.

Thin Client

wyse Technology launched two new thin computing kits, the Pilot in a Box for Full-Function Streaming and the Pilot in a Box for Shared and Terminal Services. Starting at \$9,995, each kit provides thin computing hardware, software licenses, and onsite consulting.

Workstation

■ Lenovo announced the ThinkCentre A55 SFF desktop PC with Intel Core 2 Duo processors and Windows Vista. The ThinkCentre A55 SFF desktop, which is approximately 64% smaller than Lenovo's traditional tower form factor and 25% smaller than its conventional small desktop, comes with Lenovo ThinkVantage Technologies, such as Rescue and Recovery and Client Security System, which help reduce costs for data recovery and password management. The ThinkCentre A55 SFF desktop will be available early this month.

SOFTWARE

Business Productivity

■ Cimmetry released AutoVue 19.1c1 Client-Server Web Edition for SharePoint Server 2007, Windows SharePoint Services 3.0, and Microsoft Office SharePoint Server 2007. Cimmetry says this version of Auto-Vue enhances SharePoint collaboration abilities with the addition of visualization, markup, digital mockup, and real-time collaboration tools for dozens of document types, including EDA, Office, and 2D/3D CAD. Further, AutoVue supports SharePoint's major and minor versioning control.

Messaging & Groupware

Mimosa Systems announced that Mimosa NearPoint For Microsoft Exchange Server now includes handheld messaging devices and Apple Mac clients; supports RIM BlackBerry, Windows Mobile 5, and Palm OS-based devices; and allows Mac users to access their Mimosa Archives from mail or such Internet browsers as Entourage, Safari, Thunderbird, Firefox, or Opera. It has several new features, including a Quick Search feature that can retrieve historical and deleted content based on various categories such as email headers, email

Tackling The Gray Area

Barracuda Networks Updates Web Filter

by Sandra Kay Miller

FOR MOST INTERNET filtering products, there are only two choices: block or allow. Until recently, Barracuda Networks also fell into the majority; however, with the recently released 3.1 version, administrators have two more options when it comes to keeping an eye on Internet use.

According to Stephen Pao, vice president of product management at Barracuda Networks, all of the policy actions supported by the Barracuda Web Filter now extend into monitoring and warning features. "For example, we've always had user and group policy restrictions, but now administrators can apply warnings instead of hard blocks," Pao says.

The new warning feature lets administrators display a message on the screen alerting to a possible Internet usage policy violation, but the user will still be allowed to proceed to the site with a visible reminder. Pao says, "That's for the case when you're willing to tell the user that they're being watched, but you don't want to block it outright."

Companies obviously want to continue to block access to pornography as well as spam and known phishing URLs, but Pao notes the gray areas that are causing organizations to weigh the choice of locking down Internet access against productivity. FaceTime (www.facetime.com) recently added Web filtering to RTGuardian, its existing instant messaging security product, due to "graynet" issues. Similarly, Surf-Control's Web Filter (www.surfcontrol.com), one of the original Web filtering

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bodies, or email attachments. The software can also restore deleted items to the email inbox. NearPoint supports legal discovery and can offer access to content that migrated from Exchange to NearPoint archives.

Mobility

- NetSupport announced NetSupport Manager version 10, which provides remote control functions to Windows CE, Pocket PC, and Windows Mobile devices and is compatible with both traditional IP and HTTP transports. This latest version provides tools to connect to an office system from a PDA to perform updates and restarts; access information remotely; manage Pocket PC, CE, and Windows Mobile devices from a remote but central location; deliver remote updates; and offer remote support for POS, stock, and inventory gathering devices. In addition, NetSupport Manager 10 now features power management, inventory summaries, process control, battery level reporting, remote Wi-Fi signal strength indicators, and generation of automatic help requests when a CE device is docked.
- Palm announced the Microsoft Exchange ActiveSync Update for the Palm Treo 680 and Treo 700p smartphones. The new update enhances Palm's VersaMail by adding Microsoft's Direct Push Technology, which gives users connected to an Exchange Server fast, automatic, wireless updates of email, calendar, and contact information. The Exchange ActiveSync Update for Palm OS devices also extends existing software and infrastructure and has security and central management features, including overthe-air password policy enforcement and remote wipe. For ease of deployment, the update can be downloaded over-the-air.

Network & Systems Management

■ AirMagnet released the latest version of its WLAN analyzer software, Laptop Analyzer 7.0 PRO. The analyzer sports a new UI, support for Intel's latest wireless adapters, and an interference analysis module, among other new features. The Laptop Analyzer's Intel wireless adapter support now includes the Intel PRO/Wireless 3945ABG Wireless Network Connector and supports virtual APs or BSSIDs (Basic Service Set Identifiers) by identifying BSSIDs and then grouping them with their parent APs. The software also can trou-

bleshoot devices that use the 4.9GHz public safety band. The software supports 802.11n devices, as well as 802.11d and h protocols, and offers roaming control, event log customization, and compliance reports for FISMA, Basel II, EU-CRD, and ISO 27001. The new user interface lets users share session data between the Spectrum Analyzer and the Laptop Analyzer to perform Layer 1 analysis, identifies co- and adjacent-channel interference, calculates the bandwidth and throughput loss, and identifies hidden nodes and non-Wi-Fi interference. Laptop Analyzer is available for \$3,495 (condensed version) and \$3,995 (full version) and is free to customers who have current support contracts and an older version of the software.

■ Apparent Networks launched App-Critical 3.1, which helps create network assessments and provides report-customization options and improved scalability. This release includes more than 200 enhancements, including new automated expert test analysis functions. Additionally, Apparent Networks says AppCritical 3.1 is the fastest start-to-finish network-assessment technology and only network performance application that provides actionable information instead of just historical data. In addition to real-time monitoring, the app includes expanded platform support, better search criteria, and enhanced test status messages.

■ **AppSense** unveiled the latest iteration of its Management Suite server optimization software. Designed to be used in a Citrix environment, the AppSense Management Suite Version 7.0 is certified Citrix Ready and features enhanced user profile management, application lockdown, system selfhealing, flexible configuration management, and statistical reporting. With the update, AppSense debuted the AppSense Management Center, which delivers mass deployment capabilities, enhanced system security, system auditing, and a centralized management interface.

■ NetQoS introduced the latest version of NetQoS Management Console for collecting and analyzing performance, traffic, device, and network data over a WAN. The latest version includes inbound and outbound integration through Web services, a redesigned UI, updated sign-on features, Go to Page 18

vendors, allows highly granular policies where an all-or-nothing approach to Web access impedes productivity.

For example, instead of blocking all access to travel-related sites, thus making it difficult for employees to plan business trips, a displayed reminder of the Internet usage policy may discourage someone from planning their family vacation during work hours.

Monitoring capabilities let organizations keep a close eye on suspect Web access

SNAPSHOT

Barracuda Networks Web Filter

Starts at \$1,499

New firmware update allows organizations to monitor users' Internet activities and deliver warnings instead of a less productive policy of only deny/permit; added bandwidth monitoring lets administrators instantly identify high-traffic Web sites

www.Processor.com/Barracuda310

without having to needlessly roll out a new policy. "Our customers want to see how bad the problem is they are trying to prevent," notes Pao. Administrators can keep tabs on what sites users are visiting during working hours that fall into the gray areas, such as sports sites, online shopping, checking Web mail, or even looking for another job.

Comprehensive reporting for the monitoring and warning features have also been added.

Another reporting feature added by request, but not generally associated with Web filtering, is bandwidth management. Administrators can quickly view the top bandwidth-consuming sites being visited by users—for example, employees purchasing music online and then downloading it to their portable music players because the Internet access at work is so much faster than at home. These new reports inform organizations not so much about where users are going but how much corporate resources they are using.

With these new updates, Pao believes that users can be more productive through their access to the Internet, email, and instant messaging. "That's why you buy a security appliance like this, because you want your users to take full advantage of the tools that are available to them," he says.

This firmware release is available to all Barracuda appliances in the field with an active Energize Update subscription with the exception of the 210 model in which the bandwidth reporting feature is not supported.

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Continued from Page 17 and additional page-view options. The NetQoS Management Console includes NetQoS SuperAgent for performance monitoring, NetQoS ReporterAnalyzer for Cisco IOS NetFlow and IPFIX traffic reporting, and NetQoS NetVoyant for performance

management of devices and infrastructure.

■ WildPackets announced an update to its software platform for network troubleshooting and application analysis in the form of OmniAnalysis Platform 4.1. The release includes support for Vista OSes, plus support for Intel Centrino 3945 chips for monitoring and analyzing 802.11a/b/g traffic. The update also introduces the OmniReport Service, a database-driven reporting tool that provides graphical views of network stats, including user IPs and node utilization. The service includes its own Web server and works with MySQL database collecting stats from OmniEngine.

Physical Infrastructure

■ MGE UPS Systems introduced the latest version of its NSM (Network Shutdown Module) power management software. NSM 3.1 is designed to deliver power protection for PCs, networks, data centers, and users in telecommunications, medical, and industrial fields. The updated version now includes a more user-friendly, Web-based interface. Compatible operating systems include Vista, Windows Server 2003, Ubuntu, Novell, Redhat, Mandriva, Debian, and VMWare ESX distributions.

Security

- Cybertrust launched its EV (Extended Validation) SSL certificates, which the company says let businesses provide customers who are using Internet Explorer 7 and Vista or Windows XP SP2 operating systems to better complete online transactions where security is concerned. Essentially, using EV SSL certificates will turn IE7's Address bar visibly green to indicate Cybertrust has verified the company as successfully passing an identity check as a verified business and not a phishing or other type of Internet fraud. The bar will not turn green if the business' Web site doesn't have an EV SSL certificate.
- ■ Elcomsoft announced its Distributed Password Recovery software, which lets users recover lost or forgotten passwords in a variety of protected documents. Features

include the ability to restore passwords using distributed processing, password recovery in local and global networks, remote operation, and activity logs. Supported document types include Microsoft Word, Excel, PowerPoint, Microsoft Money, Microsoft OneNote, PGP, Personal Information Exchange certificates, Adobe Acrobat PDF, Windows NT/2000/ 2003/XP logon passwords, Intuit Quicken, Lotus Notes ID files, and MD5 hashes. Prices start at \$599 for up to 20 users.

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- Imperva introduced its database vulnerability scanning software, Scuba by Imperva, capable of identifying and tracking database weaknesses and improper configurations to maintain security and compliance. The Javabased utility supports Oracle, Microsoft SQL Server, IBM DB2, and Sybase databases to prevent SQL injection and buffer overflow attacks, among others. The software also produces risk assessments that report the most severe items at the top of the list. The software is free.
- Radware unveiled DefensePro version 3.10, IPS (intrusion prevention system) software that allows networks to automatically respond to attacks targeted at revenue-gen-

erating Web-based applications. DefensePro 3.10 features worm propagation prevention to extend DefensePro's adaptive technology; even if a worm or other threat penetrates the corporate network, individual users can continue working while DefensePro eliminates the threat from their computers. DefensePro 3.10 adapts itself to the network on which it's installed, so there's no manual tuning, configuring, or updating required. Version 3.10 supports IPv6 traffic scanning and protection to protect against attacks over various Internet protocols.

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■ ScriptLogic added Windows Vista support and several other new features to the latest version of its security management software, Security Explorer 6.0. The software now has Service Explorer's functionality, which includes centralizing management of security controls and managing services and tasks on servers and desktops. The Security Explorer lets users manage permissions for NTFS file systems, printers, Registries, file shares, and services and scheduled tasks. The software offers faster results and moves more windows into a single console so users have a better view of remote computer security. The

Go to Page 19

Standardize & Organize Your Files

One Tool That Can Work For Everyone

by Julie Sartain

IMAGINE AN INTEGRATED desktop tool that organizes any and every file on your computer into logical folders inside drawers that are in filing cabinets, just like real life. And you can actually browse through those folders and preview each file without opening it, encrypt and convert files, and completely delete unwanted files and sensitive data without leaving a trace file behind that can be undeleted using special tools or software. Lucion FileCenter and FileCenter Professional bring these features and more to the desktop.

"FileCenter is an enhanced file management system that provides integrated desktop tools to give users a file organization scheme that makes sense," says Kevin Hansen, vice president at Lucion Technologies. "It helps users organize any kind of file from any Windows application with a very flexible scheme that users can easily adapt to the way they think and the way they work."

FileCenter's theme is "ease," notes Hansen. "We designed the interface to be clean, clutter-free, and intuitive for any user while, at the same time, placing any and all file functions a mere one or two mouse clicks away."

"We see the same scenario repeated over and over," says Hansen. "Imagine a small, professional office that keeps all of their files on a network server-files created by users that each have their own folder and their own way of saving files. Some users save by file type (all Word files together, all spreadsheets together), some save by topic, and others save by client or customer name or company. Every user in the office has his/her own system, and no one can find anything."

Once FileCenter is installed, a couple of office "cabinets" are created that everyone shares, notes Hansen. Users standardize the drawer and folder structure and begin setting up file naming rules. In short, everyone on the network quickly figures out the new structure because it makes sense. When they



SNAPSHOT

Lucion FileCenter and FileCenter Professional

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save a file, they select the filename from a list of suggested names. Likewise, when they add drawers to the cabinet, the office's standard folder layout is applied automatically.

With very little effort, the most important aspect of electronic filing-consistency-is quickly and easily accomplished.

FileCenter Professional, the enhanced version, adds scanning convenience. A single click of the mouse acquires a scan, exposes the readable text through optical character recognition, converts the resulting image plus text to a searchable PDF format, and then saves the file directly into FileCenter, says Hansen. It also provides automated document imaging features such as automatic document separation, intelligent document routing, and automatic file naming.

Both Lucion FileCenter and FileCenter Professional are also available for purchase through software developer and marketing company CenturionSoft (www.centurion soft.com).

Competition for FileCenter Professional includes PaperPort by Nuance (www .nuance.com), an easy, convenient scanning program for home and small business users; however, PaperPort falls short in the file management area. FileCenter's primary competitor is PaperMaster Pro by j2 Global Communications (www.papermaster.net), but this system, like many of the other smaller competitors out there, sequesters user files into a database where the files are often converted into a proprietary format. "We can't tell you how many PaperMaster users have come to us looking for a way to get their files back out of PaperMaster's database," says Hansen.

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Continued from Page 18 software is priced on a per-server and perworkstation basis. ScriptLogic also offers a 30-day trial of the software.

■ Secure Computing introduced Sidewinder 7.0, software that incorporates TrustedSource reputation technology for enterprise gateway security. TrustedSource provides reputation scores for IPs, domains, and URLs. Sidewinder 7.0 uses this real-time scoring to allow organizations to drop connections from malicious sources. The software prevents security threats and recovers bandwidth to reduce downstream server processing. Sidewinder 7.0 manages access to networks, monitors employee use of the Internet, identifies hidden attacks in packet streams, and blocks viruses in file transfers. It also creates a forensic-quality audit trail to assist with regulatory compliance and reporting.

Secure Computing also announced Webwasher 6.5 to provide Web gateway security software that features Trusted-Source reputation-based URL filtering for network users, as well as antispyware and anti-malware protection. TrustedSource provides source-based reputation scores for URLs, domains, and IPs, as well as content-based reputation scores for Web page content, messages, attachments, and images. Webwasher 6.5 uses this real-time scoring to detect and prevent security threats. Version 6.5 also helps prevent sensitive data leaks

with Secure Computing's IronNet content monitoring and filtering software, which inspects all outbound content.

■ SPI Dynamics introduced WebInspect 7 to provide scanning capabilities, assessment coverage, and accurate vulnerability detection for Web applications. WebInspect 7 features SCA (simultaneous crawl and audit) and concurrent application scanning to produce accurate automated Web application security testing. Version 7 includes onboard manual tools to add new testing processes to automated testing. Users can also manage multiple scans through a tabbed interface and submit false positives

directly to SPI Dynamics.

SPI Dynamics also announced Phoenix architecture to analyze Web 2.0 applications and reveal vulnerabilities in Web applications. Traditional application scanners may fail to discover vulnerabilities or report high false negative rates in Web applications that combine client- and server-side processing with Web 2.0 technologies such as AJAX, SOAP, SOA, and Flash. Phoenix architecture provides an automated Web application security tool that can discover vulnerabilities in complex Web applications. The architecture features SCA technology to crawl and audit in a single process, and Phoenix architecture provides real-time results throughout the scan.

■ Symantec has introduced Symantec Enterprise Vault 7.0 for content archiving. The software collects and stores email and collaborative data and manages it in compliance with requirements. It also supports e-discovery and knowledge management. The new version includes the Automated Classification Engine and User Classification Engine, as well as Enterprise Content Management integration and Microsoft Exchange 2007 integration. The product is available separately and as a part of the Symantec Information Foundation 2007 suite.

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■ Trend Micro announced the latest versions of its Worry-Free Security Solutions. The latest editions of Trend Micro Worry-Free Security provide single-step installation and deployment, plus proactive defenses against traditional and emerging malware. New features in Client-Server Messaging Security 3.5 protect customers against Web threats such as spyware, rootkits, bots, and phishing. Other improvements include enhanced antispam functionality with advanced heuristics, faster updates, and new server-side quarantine features.

■ Verifichi introduced IT Auditor, an integrated CMDW and discovery engine for auditing the servers of a company's IT infrastructure, attached storage, and applicants across a variety of OSes. IT Auditor offers out-of-band independent audits and helps

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companies comply with Sarbanes-Oxley and HIPAA. The software collects and stores a historical audit trail of all configuration changes and offers real-time reporting.

Storage

■ Faster, easier system restoration is the goal of Arkeia's Advanced Disaster Recovery, a Linux disaster recovery module for Arkeia Network Backup version 6.0. The \$600 per server recovery module uses a GUI and is based on the 2.6.17.11 Linux kernel. It supports SATA, LVMs, and 64-bit x86 architecture, as well as SCSI and network card detection. It's also network- and USB-bootable.

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- **IBM** released the latest version of its Tivoli Storage Manager data protection software. Tivoli Storage Manager v5.4 features improved application availability, centralized encryption key management, and data shredding, which lets the server overwrite moved or deleted data to prevent sensitive material from being recovered. The new release also enhances support for IBM's tape encryption systems.
- LeftHand Networks announced that its SAN/iQ software now supports IBM's System x3650 server. The company says that open standards can significantly reduce costs and increase ROI for customers in contrast to traditional, proprietary SAN offerings.

NCR Cashes In With DynaKey Point-Of-Sale Update

.

Features Larger LCD, Added Keys; Biometrics, Capacitive Touchscreen Are Optional

by Joseph Pasquini

EVERY RETAIL BUSINESS recognizes that happy customers are likely to be repeat customers. Shoppers are simply more prone to take their shopping elsewhere if unnecessarily delayed at the register line. Conversely, customers will focus on and appreciate an efficient—as well as accurate—checkout experience. In an effort to raise cashier productivity and ultimately increase retail traffic, NCR has enhanced its successful RealPOS DynaKey point-ofsale, or POS, interface solution with additional functionalities.

Intended as a natural progression of technologies for its DynaKey point-of-sale solution, NCR's updated POS interface continues to offer all the features of earlier models while simultaneously introducing additional benefits.

SNAPSHOT

NCR RealPOS DynaKey

Updated point-of-sale interface adds new features and shortens training time for new employees

A total of 37 user-programmable keys, including eight ATM-like dynamic keys and forward/backward function keys, supplement the updated DynaKey interface.

According to NCR, these new features collectively permit an employee to progress through the transaction process with fewer keystrokes than conventional POS alternatives. "The combined integrated display and keyboard is designed to guide users through a transaction with the same simplicity as an Automated Teller Machine (ATM)," says Carrie Smola, product marketing specialist for NCR Corporation.

A 15-inch active matrix color LCD comes standard with this latest version of the RealPOS DynaKey and replaces the smaller 12.1-inch screen found on previous models of the product. The larger screen is designed to increase the level of information available to the cashier during the sales process. An optional touchscreen display, based on capacitive technology, offers higher accuracy rates and improved durability.

Despite the additional function keys and larger display, the dimensions of the latest DynaKey are only slightly larger than previous versions.

Rather than using traditional authentication mechanisms, such as swipe cards, passwords, and turn keys, the DynaKey is available with an integrated fingerprint reader for retailers wanting to leverage biometric technology for POS access or timekeeping tasks. This optional accessory can also be installed in the field as an upgrade.

With its three USB ports, the DynaKey can accommodate additional accessories, including a three-track magnetic stripe reader, a stereo speaker upgrade kit, and integrated/remote mounting options. Firmware is also field upgradeable.

NCR faces competition from other pointof-sale manufacturers, including IBM (www.ibm.com) and its workstation-based SureOne POS system. However, NCR contends that its DynaKey design better responds to both corporate and consumer needs. "DynaKey studies have demonstrated productivity gains of up to 10% and reduced training costs by 40 to 50%, depending on the retailers' current display interface," says Smola.

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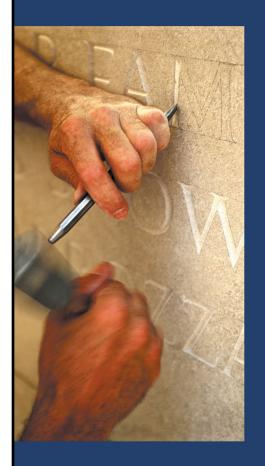
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HVAC

■ MovinCool unveiled its CM12, a ceilingmounted, spot-cooling air conditioner capa ble of providing 10,500 Btu/H. The device is ideal for crowded server or equipment rooms where maneuvering a portable spot cooler is often a difficult task. The CM12 has the following features: a built-in condensation pump, mounting brackets, both return and supply air flanges, and an automatic shut-off olled from a common fire alarm control panel. The unit's evaporator has an operating range of 60 to 95 degrees F, and the condenser's operating range is 60 F to 113 F.

Definition updates occur automatically and users can scan any system connected to the network. An integrated spam blocker helps to filter incoming email without any changes to email programs (compatible with Microsoft Outlook/Outlook Express. Eudora, Netscape, Incredimail, AOL. Hotmail, MSN, and Yahoo!).

■ Microsoft is teaming up with Whale Communications to support a hybrid IPSec and SSL VPN appliance for large businesses. Called Whale Intelligent Application Gateway, the appliance will be based on Whale hardware and SSL VPN software in tandem with Microsoft ISA Server 2004's IPSec VPN, caching, Web proxy, and comRS-485 data flow control, reconnection and remote firmware downloads. The Win98/NT/2000/XP-compatible gateway also features a port mapping utility.

■ Belkin's new CableFree USB Hub is the first USB Hub that doesn't require a cable that connects to the computer. The UWB (Ultra Wideband)-enabled device takes advantage of Freescale Semiconductor's Ultra-Wideband technology. A 4-port ver-sion of the hub will be available in spring this year. The hub lets users move notebook computers without losing their connections to USB devices

■ Adder Technology announced the

■ MOXA bills the VPort 3310 as an indus rial video server. The system features DIN-rail mounting, 24VDC redundant power inputs, and IP30 protection. A VPort 3310-T offers protection against extreme temperatures (-40 to 75 degrees C). The VPort 3310 uses MPEG-4 video compression to provide the best quality while using a minimum of bandwidth. Multicast IGMP (Internet Group Management Protocol) further increases bandwidth efficiency, and video is streamed using RTSP (Real Time Streaming Protocol) standard. Various video resolutions are offered, but MOXA claims the system can process 30fps at 352 x 240. SNMP provides for easy remote administration, and support for PPPoE and

xDSL connections means you can connect rectly to a WAN. The OXA SoftDVR Lite IP

sed the BlueSecure 0 family of wireless socket teamed with develop the two nev ed access points. The Virtual Access Point natically assigning VLAN designation to

Quick rundowns of all new data center-related products released in the past week.

MarketPlace

► NEWS

Product Releases



■ EMC To Buy RSA

EMC WILL PAY nearly \$2.1 billion to acquire digital security company RSA Security. EMC will pay \$28 per share of RSA and the assumption of outstanding options. The acquisition is scheduled to be complete later this year, at which time RSA, located in Bedford, Mass., will operate as the Information Security Division of EMC.

Notebooks More Prone To Failure

GARTNER RELEASED A STUDY showing laptop break more often than desktop computers. For computers bought between 2005 and 2006, 5% of the desktops will break within a year, while 15% of the notebooks will fail. Similarly, 12% of the desktops are expected to fail in the next four years, while the prediction hits 22% for notebooks. In the past, laptops most often saw failure in the form of broken screens, but now that new technology has improved the screen structure, motherboard or hard drive failure has become the most common laptop problem.

Microsoft Delays Office 29

CROSOFT PLANS TO duct availa

organization. More than 200 people will lose their jobs as part of the sales reorganization, but the company is creating 66 new sales jobs that will focus on customer interaction. On the applications business side, Orlando Ayala, COO of Microsoft Business Solutions and senior vice president of Small and Midmarket Solutions & Partners, will become senior vice president of a new Emerging Segments Market Development group, focused on developing Microsoft's presence in emerging markets.

Intel Plans Sale Of Handheld Chip Division

AFTER EXPERIENCING a 38% drop in O1 profits, Intel, the largest semiconductor maker in the world, has decided to sell its division that manufactures processors for handheld devices. As Marvell Technology Group purchases the division for \$600 million in cash. Intel will shift its focus solely to producing chips for PCs and servers. In addition, Intel CEO Paul S. Otellini plans to reduce Intel's costs per year by \$1 billion, saying that "no stone will emain unturned or unlooked at

New Computer Chip Speed Record

RESEARCHERS AT GEORGIA TECH and IBM report that a super-cooled silicon-based computer chip has broken previous speed records operating at frequencies above 500GHz, or 500 billion cycles per second. Researchers cooled the chip to -451 degrees Fahrenheit, only eiglegrees from absolute zer using The researchers

ed with th

Agency are also looking to build the new supercomputers. The Senate has introduce legislation to fund supercomputing center designed to help businesses develop products or solve related problems.

■ Blow To 'Net Neutrality

A 'NET NEUTRALITY AMENDMENT failed to receive approval by the Senate Commerce Committee, with an 11-11 tie vote. A majority was needed for it to pass. The amendment which was Democrat-backed, would hav required all Internet traffic to be treated the same, regardless of the traffic's "source" or "destination." Republican members of the committee voiced concern that the amendmen was premature, as it is not yet clear if such an amendment is necessary

Yahoo! Click Fraud Settlement OK'd

A JUDGE HAS GIVEN preliminary approval to settlement in the click fraud claim against Vahoo! As a result of the settlement Vahoo will be required to pay \$5 million in legal fee as well as agree to extend its time frame for reviewing click fraud complaints to include those received since January 2004. Click fraud is the practice of clicking an ad repeatedly in orde often pay a per-click fee for advertisements dis played through Yahoo! and similar sites.

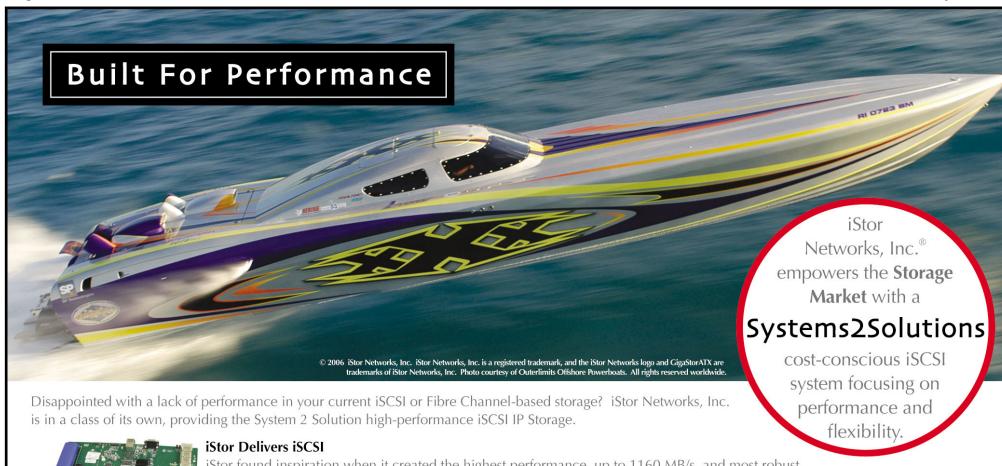
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The iStor Networks web seminar "IP SAN's in the SMB" featuring Brian Garrett of ESG can be viewed at www.infostor.com/webcast.

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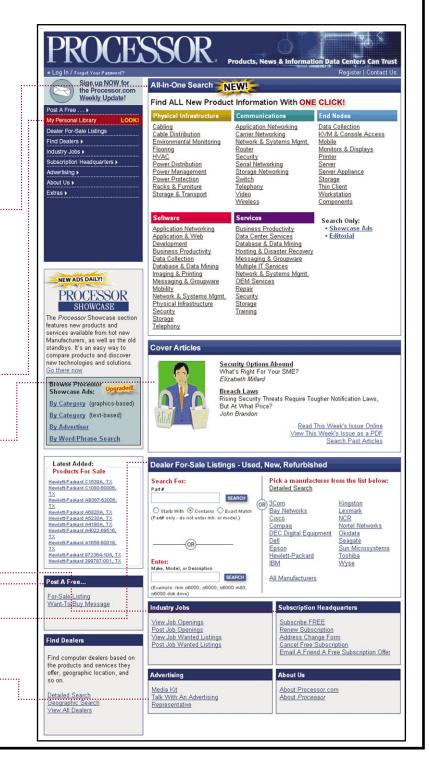
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OPINIONS

Don't Dismiss SaaS Just Yet

Companies of all sizes are getting larger returns and shorter implementation times with SaaS (Software as a Service) than they are with the traditional on-premises model. However, many IT departments still don't consider SaaS as an option to meet their companies' business needs. In doing so, they are wasting the opportunity to impress senior management by delivering quick responses to important business challenges.

A Real-Life Story About SaaS

A business executive that I know had been trying to get a CRM system for a couple of years. The answer from the IT department was always the same: "Our resources are fully booked for other projects. You'll have to wait another year." Desperate for a solution and frustrated with IT, this executive decided to subscribe his users to an on-demand CRM solution. He hired a business analyst to help him guide

the project, and in only one month, his entire department was up and running with the CRM system.

Initially, this executive's intention was to use SaaS as a temporary solution. However, after two years, the results have been so positive that he no longer wants to do the onpremises project that IT is now proposing. As you can imagine, this experience has been pretty uncomfortable for the CIO of the company because

other executives are questioning the effectiveness of the IT department.

IT managers must learn from this story to avoid being embarrassed by their business counterparts.

Facts & Myths About SaaS

Critics of the SaaS model argue that it exposes the company to reliability, security, and privacy risks. This is not true. In fact, vendors can often do a better job at hosting and protecting the application than internal IT departments.

Companies such as Salesforce.com are SAS 70-certified and have invested heavily in robust data centers that use encryption and replication technologies to guarantee high levels of reliability and security. How many internal IT departments can afford to build that kind of infrastructure?

The key message here is that these concerns about SaaS are not valid as long as the company exercises due diligence when selecting an SaaS vendor.

Many IT managers feel that SaaS can be a threat to their jobs. This doesn't have to be the case. SaaS actually gives them flexibility to use their budgets and resources in other projects. In the end, this means doing more projects with the same amount of resources.

Dismissing The Dark Side

SaaS also introduces some new challenges that are best managed by IT. For example, this model creates the need for a vendor relationship management role, which the business is not well prepared to play.

Another important role for IT is data integration. Because IT doesn't have direct access to the tables of the SaaS application, the development team needs to use different approaches to integrate the system. Leading SaaS vendors have created data integration APIs (application program interfaces) to facilitate this integration.

Another commonly perceived weakness of SaaS is customization. This concern is

> valid. However, this limitation can actually be a good thing for companies. It obligates the business to reassess its needs and to adapt its processes to the best practices embedded in the application. This situation is ideal for applications that automate business areas that don't differentiate the enterprise from its competitors (for example, an expense management system). The processes built in the application are often

better than those existing in the company. So, why would you want to replicate internal broken processes through customization?

SaaS: Who Is It Good For?

I'm not saying that companies should blindly use SaaS for every business need. Instead, I'm suggesting that SaaS can be an excellent alternative to deliver quick results in certain areas without overloading internal IT resources. In particular, SaaS is a very good fit for companies that:

- · Have good broadband Internet access
- · Are comfortable with having their data at the vendor's site
- Have business requirements that can be met with little or no customization

Don't expect to have a very large number

- of users for the application Don't have or don't want to allocate
- internal IT resources to implement, support and maintain the application Have the need for an application that
- doesn't require complex, real-time data integration with other systems
- Are comfortable with the notion of renting instead of owning the application

Next Time, Impress The Business

As the above story illustrates, the characteristics of the SaaS model give business units the power to get an application quickly without the intervention of the IT department. IT managers should stop seeing SaaS as a threat. Instead, they should see SaaS as an opportunity to look smart in front of their customers by quickly delivering solutions to new business needs.

> Send your comments to infotech@processor.com



Mauricio Rodriguez is a Senior Research Analyst at Info-Tech Research Group. With $\stackrel{\textstyle extstyle extstyle$ he specializes in enterprise applications, project management, and software development. Mauricio has an MBA from York University, a Master's Certificate in Project Management from George Washington University, Project Manager Professional certification, and a Computer Science & Systems Engineering degree from Andes University.





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Server Virtualization

Panacea Or Over-Hyped Technology?

by Kurt Marko

SERVER VIRTUALIZATION is a 1960s-era concept from IBM mainframes, whose 21st-century incarnation has become one of today's hottest IT trends. The Moore's Law-fed growth in processor speed and memory density has led to massive computing power in remarkably compact packages. With hardware performance outpacing software demands, dedicated application servers are often under-utilized. Wouldn't it be nice to use that new multicore, multiprocessor box to mix and match applications without concern over incompatible OS versions or rogue software crashing the entire machine? Server virtualization promises just such flexibility with concomitant increases in server utilization and efficiency.

Like any hot new technology, virtualization can be the victim of over-hyped claims, but that doesn't mean it's all sizzle and no steak. Virtualization offers tangible benefits, particularly to cost-constrained SMEs, notwithstanding a few pitfalls. In this article, we will examine the pros and cons of virtualization, expose the hype, and identify some potential risks and downsides SMEs need to understand before undertaking a virtualization project.

Benefits

Server virtualization promises a host of benefits, some quantifiable and tangible, others more abstract and hard to measure, the clearest of which is a reduction in hardware acquisition costs. According to Matt Brudzynski, senior research analysts at Info-Tech Research Group, companies in Info-Tech's recent study, "Achieving The Business Case In Virtualization," accrued 40 to 75% savings in hardware purchases when deploying a virtualized server farm vs. traditional single-instance servers.

Less hardware also yields a reduction in data center facilities costs associated with server infrastructure, such as power, cooling, and floor space. Brudzynski notes that a 50% reduction in power consumption is not unusual. Power savings are so significant that PG&E, Northern California's electric utility, has recently initiated a program offering financial incentives of up to \$4 million per project for companies to virtualize. By its analysis, "Customers can expect to save \$300 to \$600 in annual energy costs for each server that is removed."

While harder to quantify, Brudzynski also found other advantages with a virtual server environment, including:

Increased application flexibility. Virtualization software enables administrators to rapidly change resource allocations for heavily used applications, often in real time.

Increased server manageability. Sophis-ticated management applications controlling a virtualized environment enable administration of an entire server farm from a single console.

Application continuity and disaster recovery. On a virtualized platform and operating system, applications run on an easily cloned software environment; thus, they can be quickly redeployed to another physical box, or even different data center, in the event of a hardware failure.

The Hype

Virtualization's biggest area of hype and specsmanship involves the server consolidation ratio: for example, the number of virtual machines a physical server can host. This ratio is highly dependent on the actual applications and workload run on each "guest" virtual machine, but in Info-Tech's survey of actual production implementations, it found consolidation ratios as stated by vendors roughly double what customers end up achieving. As an example, for a typical dual-core, dual-processor system, vendors claim an average of 12:1 guest-to-physical server ratio, whereas actual implementations come out closer to 6:1. (See Figure 1.)

According to Brudzynski, such optimistic ratios, sometimes quoted in excess of 20:1, are often derived by cherry-picking low-utilization applications, such as DNS, WINS, or file/print servers, when benchmarking. Simon Crosby, CTO of Xen-Source (www.xensource.com), counters that "some people are savvier about how to get more out of a machine," and they do see ratios as high as 15:1, albeit with light workloads.

Customers should also be mindful of the added layer of software, requiring new IT expertise and training, that virtualization entails. While promising to enhance systems management capabilities, according to Forrester Research Senior Analyst Galen Schreck, virtualization also "adds a new dimension of complexity to the way the data center is managed."

Another area in which buyers must exercise caution is the management overhead associated with multiple guest OSes on a single physical machine, so-called OS Sprawl. According to Kurt Daniel, vice president of marketing at SWsoft

(www.swsoft.com), some virtualization platforms may require sys admins to manage each guest OS independently, significantly multiplying administrative overhead. Other platforms, such as its Virtuozzo product, provide consolidated OS and application management across virtual environments.

Additional Pitfalls

According to Brudzynski, virtualization customers need to be cognizant of a number of less obvious pitfalls. First, building a server farm can lead to potential I/O bottlenecks, particularly with storage, that can cause performance degradation. Increased server concentrations can lead to network and storage bottlenecks even when using high-performance Fibre Channel or Gigabit

networks. Additionally, when troubleshooting system problems, virtualization also introduces an additional layer of vendor support that often leads to finger-pointing between the OS and virtual server vendors, each claiming only partial responsibility for the overall software environment.

Another issue Brudzynski identifies is the potential for an increase in application software licensing fees. Some enterprise application vendors don't yet recognize VMs (virtual machines) in their pricing model and may license based on the full hardware capabilities of a physical server, not on the actual processor and memory resources consumed by the application on a VM.

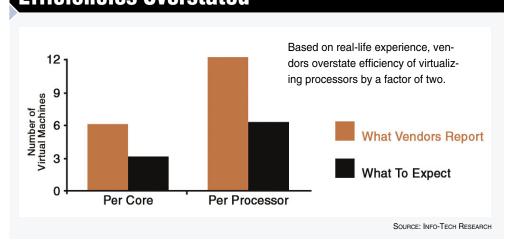
While not technically a virtualization problem, Brudzynski points out that server farms only consolidate hardware, not applications; thus, IT managers may still have personnel and hardware devoted to underutilized applications unless they couple virtualization implementations with a careful

Go to Page 26

Figure 1. Server Virtualization Usage By Company Size



Figure 2. Server Consolidation Efficiencies Overstated



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Planning The Network Before Starting To Build

IT Should Play A Primary Role In Decision Making

by John Brandon

FOR MOST COMPANIES, constructing a new building is an exciting proposition. For starters, it means the company is likely experiencing tremendous growth. It's an opportunity to situate departments together, rather than have them scattered throughout an older headquarters. There's an excitement when it comes to the entryway, conference room locations, lunchrooms, and corner offices. Unfortunately, even for companies that know how important technology will be in a new building and how quickly technology changes, the IT department is often considered only one of the partners with a facilities management group and is only consulted at various stages of the construction process.

According to Bret Lehman, IBM (www .ibm.com) global offerings development executive for site and facilities services, the primary concern with new construction should be technology-centric. Long before

IT Involvement In Construction

- Develop a close-knit communication plan between IT and facilities management now and not just when the construction planning process begins.
- Define infrastructure needs for your current facility, according to technologies and applications in use today, and forecast for new business growth.
- Focus on the most critical variables for a new building: cooling requirements, power requirements, and network cabling.
- Site selection is critical because some municipalities will not be able to meet the high power requirements for advanced data centers.

construction begins, companies should look into three critical areas: power usage, network bandwidth, and data center cooling.

"You need to choose a site location where the municipality can provide the optimal services and support the continued growth in technology for many years to come," Lehman says. "In some companies, there is a disconnect between the IT group and facilities management, but we suggest to our clients that facilities management should actually report to IT during construction because technology is so critical."

Lehman notes that the process of constructing a new building should not just involve IT or make IT a consultant on the project but put the department at the center of the planning process and then make sure IT is leading the effort in the technology infrastructure. One reason that this is more critical now than in the past two decades has to do with how quickly technology is changing. Many legacy data centers have served companies well for storage, servers, and networking. In the next 10 years, the rate of change in the data center will accelerate. According to a Gartner study on business growth up until 2009, 70% of all data centers will not have the capacity to support their end users and will need to upgrade or remodel the data center. Lehman suggests the best strategy is to plan for this growth during construction.

Networking: Fundamental

One of the key fundamentals in a new building is the network, especially because that is the technology that flows through the entire building, not just in the data center. Richard Greco is the managing director at the California Data Center Design Group (www.cdcdg.com) and states that the information technology group should be a primary partner in any building project, especially when it comes to the network.

"IT should determine the power and cooling requirements of servers and other

IT equipment," says Greco. "They should also determine the quantity and configuration of racks and cabinets, quantity and type of cabling, cabling configuration, desired reliability levels, and all operational costs, such as data center energy, staffing, and maintenance."

In an era of green computing, it's also critical to survey the gas and electrical issues for the building related to cooling and power requirements. Data center planning for a new building should start with whether the municipality can provide the utilities for the facility, at what price and amount, and for what set period into the future. Lehman notes that in areas such as Manhattan, there's a shortage of power capacity such that a new building will only be allotted a certain power bandwidth, and the likelihood of expansion is minimal. In advanced computing, server consolidation helps—according to an IDC study last year, server prices and power/performance ratios are flattening, which is good news for companies building new offices and new infrastructures.

Still, Lehman notes that these lower costs and flattening ratios will lead to more innovation in the industry and new applications for technology that will all require more

Build vs. Lease Considerations

One of the primary differences between constructing a new building and leasing a new building is that the service-level agreement, compliance regulations, and other contracts between the company and leaser must be extremely well-planned. "An upgrade of an operating facility entails significant added risk and cost due to tight construction coordination through the change management process," says California Data Center Design Group's (www.cdcdg.com) Managing Director Richard Greco.

adequate space for quick growth—at least larger than their current needs dictate. It's easy to focus on consolidation, as 1U and 2U servers tend to use less power than before, blade servers require less space, and storage can be easily consolidated in NAS and SAN arrays. Companies should consolidate and plan for upgrades.

"The planning process must be done organizationally, not as separate entities, so that you can plan for upgrades and make sure the data center meets current and future needs," says Lehman. "This means IT is not just a customer of facilities management but owns the budget for power and cooling. When growth occurs, it's the data center's problem, too."

Of course, planning and preparation for a new building is a cyclical process, one that can take years and requires constant communication between departments. Lehman and Greco both caution that there will be required

Long before construction begins, companies should look into three critical areas: power usage, network bandwidth, and data center cooling.

power, cooling, networking, and infrastructure to support them.

Data Center Size

Lehman points out that most companies should not see a new building project just as an opportunity to consolidate the data center or just to build new infrastructure into the facility, such as wireless technology and IP telephony. Instead, he says the rate of change in technology should prompt companies to build larger data centers with

infrastructure changes, and they could even occur shortly after occupying a building, so that should be part of the planning, as well. It's impossible to predict exactly when the next big infrastructure change will take place—technologies such as Internet-based video distribution and WiMAX (Worldwide Interoperability for Microwave Access) wireless access seem to always be on the horizon. A new building helps you stay current, consolidate services, and plan for growth in ways that an older headquarters couldn't.

Effective Management

Tips On Being A Better IT Manager

by Tony Bradley

THE DAILY TASK LIST of a data center or IT manager can be varied and diverse. Install, upgrade, and maintain servers. Ensure that data backups are completed and that the media is stored offsite. Review the firewall and IDS logs. Evaluate a new network monitoring utility to see if it lives up to the vendor's claims. Present quarterly summary reports to executive management. Set up ACLs (access control lists) on the router to restrict access.

There was something else. . . . What was that other thing? Oh yeah: manage people. Don't let the title fool you. Data center managers and IT managers don't really manage data centers or information technology; they manage the people who make sure that the data center and the information technology run smoothly. Below are

four tips that can help IT managers manage upgraded software, or whatever else they their teams more effectively feel is necessary to do the job well. You

Four Tips For Better IT Management

Play to your team's strengths. Understand the strengths and weaknesses of the individuals on your team and the team as a whole. Keep those strengths in mind when taking on and executing projects and tasks. Also, ensure that your team gets the necessary training to improve on identified weak areas.

Delegate to those who can do it better than you. Face it. You don't know everything. You are great at what you do, but you aren't the best at every task. Leverage the knowledge and skills of the people who work for you. Delegate tasks to share the responsibilities and make the team, as a whole, more efficient.

Give them what they need. When starting a new project, or periodically throughout the year, ask your team what they need to get the job done. Give them a chance to ask for more training, better equipment,

upgraded software, or whatever else they feel is necessary to do the job well. You probably can't provide it all, but at least you can provide some of it and give them explanations and realistic expectations about those things you can't provide.

Let them speak frankly. You want your team members to feel comfortable sharing their opinions and disagreeing with you. Again, you don't know everything, and you aren't always right. Foster an environment where your team is willing to share and contribute without being insubordinate. Speaking frankly does not mean speaking with disrespect, and when you tell them what needs to be done, they need to execute whether they agree or not.

An effective data center or information technology department is driven by the people who run it, not the tools or technology they run. If you build a team with solid skills and develop an environment to foster and expand on those skills, you will end up being a more successful data center or IT manager.

Best Tip: Do Your Homework

According to Ben Rothke, senior security consulting with INS (www.ins.com) and author of "Computer Security: 20 Things Every Employee Should Know," the first thing an IT manager should do is to read "Leading Geeks: How to Manage and Lead the People Who Deliver Technology" by Paul Glen.

Rothke says, "The book provides a good understand of geeks, who make up much of the IT culture. A manager must understand their subordinates in order to effectively manage them. There is often a significant cultural abyss between management and geeks, which leads to the frustration of all parties involved. By understanding how to manage IT personnel, the IT manager can ensure he is successful. Most managers fail simply because they have no idea how to lead. They are often placed in a position of management by default."

The first step to effective leadership is to understand that you are leading people. If you provide the proper environment and motivation for your people, the data center or IT department management will follow.

Globalization & The IT Organization

Can A Global Workforce **Work For Your Company?**

by Paul Ferrill

DEALING WITH THE EFFECTS of globalization has become a necessity in the light of competitive pressures and the incessant push to reduce costs. Outsourcing is no longer something restricted to call centers and low-cost manufacturing. Managing a distributed workforce with both employees and contract team members requires an extra measure of skill and tact.

Barbara Gomolski is a research vice president for Gartner and has presented a talk titled "Future Shock: Prepare for means boundless new opportunity for organizations, but it also creates heightened competition both in terms of business efficiency and the hunt for the best talent. As a result, price competition and the need to move work to the best sources of labor will remain," according to Gomolski.

Positioning an IT organization to take advantage of these opportunities and to prepare for the challenges will take some planning. Identifying specific business functional areas as potential outsourcing candidates while keeping company core competencies in-house is an important first step. In terms of software development, this could mean adapting new methodologies that lend themselves well to a distributed team.

Understanding the challenges of globalization will play a big part in determining how successful a company is in a global environment.

A Future Unlike the Past." "Today, business expectations of IT are largely centered around supporting revenue growth and lowering the cost of doing business. Going forward, there will be many new opportunities for organizations to exploit IT for competitive advantage," says Gomolski.

Look Ahead

Understanding the challenges of globalization will play a big part in determining how successful a company is in a global environment. "A truly global economy

DataArt (www.dataart.com) is a provider of software development outsourcing services. "We have adopted the agile methodology for all our projects because we believe that it lends itself well to distributed teams. It also provides the customer an opportunity to redirect a project before it gets too far off track," says DataArt Executive Vice President Alexei

"We believe there's no project or effort too small for us to undertake. Our goal is to work with a customer to gain their trust and

to show how we can provide the best value for their investment. We spend a lot of effort up front in an attempt to understand their business and specific project to the fullest extent possible. From there we hope that our results speak for themselves," says Miller.

Cultural Awareness

Outsourcing isn't the only global influence many companies must come to grips with. Multinational corporations have their own sets of challenges requiring a slightly different approach. Identifying these challenges and understanding how to deal with them is an ongoing effort.

Mainsoft (www.mainsoft.com) is a developer of cross-platform application development tools for the Microsoft .NET environment. The company maintains offices in Israel and the United States. Managing the differences between cultures and skill-sets has been one of its biggest challenges. "Whereas our U.S.-based field engineers can quickly assess customers' business requirements and focus on what it will take to resolve their issues, the Israeli team has a limited understanding of corporate communications and what it takes to work with enterprise customers," says Philippe Cohen, vice president of product development at Mainsoft.

IT organizations may require a new mix of skills for their management teams. This is especially true when dealing with a global organization. A good manager understands the strengths and weaknesses of his team. Taking advantage of the strengths while minimizing exposure of the weaknesses will require a good mix of project management and communication skills.

Tips For Going Global

February 9, 2007

These tips come from Mainsoft's (www.main soft.com) management team members and are a direct result of their experiences dealing with a global team.

Establish a partnership. It's important to make everyone a part of the team with clearly defined roles and responsibilities. Communicate things such as the business strategy and competitive landscape so that everyone can understand where things stand.

Integrate the two cultures. Share your holiday calendars and keep an open mind about the other group's culture.

Encourage travel. Be willing to invest in getting your team together at least once a year. Position exchanges where two employees swap locations for a short period of time to help develop a better understanding of specific cultural challenges.

Get to know your peers. Don't be afraid to interact outside the workplace.

Develop a culture of mutual respect.

Nothing fosters teamwork better than good personal relationships.

Invest in communication skills. Knowing when to use different forms of communication is as important as basic language skills.

Use time zone differences to your advantage. Getting important information out at the end of the day gives team members in a different time zone a jump start as opposed to waiting until the following day.

Integrate business and technology.

Engineers want to understand how their work is being received in the marketplace. Keep them updated.

Server Virtualization

Continued from Page 24 application inventory. Finally, he points out that capacity planning is still an art, not a science—it's difficult to estimate the server

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farm hardware requirements suitable for a given set of applications and users. There isn't a straightforward way to map the number of guest applications a particular box can handle—some trial and error is required to optimize resource usage.

SME-Specific Advice

Info-Tech found a couple rules of thumb for SMEs taking the virtualization plunge. A business needs at least 15 servers to benefit from a consolidation project and must achieve at least a 3:1 consolidation ratio to

break even. While SMEs have been slow to adopt virtualization (see Figure 2), they may actually derive more benefit than large enterprises because they can more readily take a holistic view of the entire server infrastructure and consolidate companywide instead of at the department level. On the downside, SMEs will typically lack the expertise to implement a virtualization project in-house and thus must employ consultants and/or a significant training program for internal staff.

Server virtualization offers the potential for significant cost savings and increased reliability and flexibility of server infrastructure. Potential customers should be

wary of exaggerated claims for VM consolidation ratios and one-sided sales pitches minimizing the additional complexity of a virtualized environment. Procrastination may prove to be a virtue, however, because analysts and vendors alike agree that virtualization technology is rapidly becoming commodified by being incorporated into underlying server OSes. This trend is reducing licensing costs while magnifying the importance of management software; thus, decision criteria for a virtualization platform will increasingly involve qualities more difficult to analyze, such as real-world performance and ease of use.



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Avocent

WHAT'S HAPPENING

Unified Bandwidth Management

XRoads Steps Out With New Technology

by Robyn Weisman

As More and More technologies become incorporated into an organization's operations, an organization's network infrastructure has become more critical—and burdened—than ever before. Not only does the average network handle interdepartmental email and instant messaging, storage management, application deployment, and security, it may also be (or soon may be) responsible for VoIP telecommunications, E-DRM (enterprise digital rights management), and server virtualization, to name a few.

XRoads Networks (www.xroadsnetworks .com) provides its customers, many of which fall under the SME segment, with bandwidth management appliances that address organizations' needs for load balancing, network traffic prioritization, network redundancy and availability, and other capabilities that optimize and protect networks from a host of potential complications.

The founders of privately owned XRoads came from ISP backgrounds and have ample experience in network-related issues, says Daren French, XRoads vice president of business development. Established in 2001, the company focuses on network load-balancing, multi-WAN options that have been sold in more than 10 countries to companies ranging from the Fortune 500 to SMEs.

The Importance Of UBM

UBM (Unified Bandwidth Management) is an emerging technology that uses a central

control point to manage all the bandwidth resources of a given network. According to French, XRoads coined the term UBM, and the company is pleased that other manufacturers in the industry have adopted the term.

"The idea behind it is like Unified Threat Management, taking various security features and putting them in one platform. It's the same concept for customer bandwidth, where site-to-site connection, bandwidth compression, multi-WAN capabilities and network visibility, are all combined into a single platform," French explains.

According to French, UBM, in addition to providing users with faster throughput, network redundancy, and traffic shaping, gives users a load balanced VPN connection with the ability to establish multiple tunnels between WAN connections, auto-failsafe capabilities, and additional bandwidth to optimize and speed up VPN connectivity for 99.99999% site-to-site reliability.

Leveraging UBM Technology

XRoads' products offer users what the company calls TLC, or Total Link Control. Leveraging the UBM platform, XRoads' TLC products offer some combination of its five packet management modules, all of which control some crucial aspect of bandwidth management. XRoads' MultiLink Module works by collecting multiple WAN connections of different types and balancing the network traffic across all these links. This module allows for at least twice the amount of bandwidth between various WAN links through its data compression capabilities, thereby leading to faster throughput.

XRoads' Application Shaping Module classifies the applications running on a given

network, orders applications from the most mission-critical to the least, and partitions the network bandwidth so that the most critical applications obtain the most bandwidth and, consequently, perform effectively while curbing unnecessary use of overall bandwidth. This module filters applications using Layer-7 Deep Packet Inspection, which can automatically identify necessary applications from those that are either used recreationally or are malicious in nature.

The VPN Module works by either supplying a load-balanced VPN solution for two to hundreds of remote sites or providing redun-

XRoads Networks

dancy to deployed VPN setups and, in addition, improves VPN response times and download speeds. To do this, the module has data compression capabilities, automated tunnel failover, and tunnel binding, providing a 5:1 speed increase between VPN tunnels.

XRoads' Firewall Module provides an enterprise-class firewall that can supersede or supplement an existing solution. It offers DoS and virus protection, content filtering, stateful packet inspection, and 802.1Q VLan tagging, among other features.

Finally, XRoads' Reporting Module tracks bandwidth usage and provides reporting and statistical analysis for VPN and WAN/LAN usage. It offers user-defined reports, application-usage reports, email alerting, and local and remote server monitoring.

XRoads Appliance Revamp Coming

XRoads presently sells three different types of appliances: its EdgePRO Network

Load Balancers, Edge2WAN and EdgePro VPN Optimizers, and EdgeXL Traffic Shapers. All appliances come with a standard XOS (XRoads Operating System) feature set. XOS is XRoads' modular OS that supplies a wealth of core technologies, including Tunnel Multiplier, MOD (Multi-Level Outage Detection), Best Path Routing, and Virtual Technician. According to French, XRoads has five or six patents that are pending.

French says that the feature set in XRoads' line parallels those of Packeteer (www.pack eteer.com), the largest player in the industry. Its EdgeXL Traffic Shapers offer network visibility comparable to that of Packeteer and Cisco (www.cisco.com). XRoads' equipment is available either through OEMs or its direct channel. According to French, ISPs are reselling its equipment as part of a bundle or specific solution, such as those employing multiple T1 connections.

According to French, Xroads is revamping and simplifying its product line so that it follows the UPM model. The company's EdgeXL line will offer site-to-site tunneling and other feature sets that were previously only available in load balancing appliance models. French says it will make the company's products that much more powerful and dramatically improve traffic shaping.

"This revamp will make it easier for our customers to understand and will streamline pricing," says French. French adds that current customers will be able to trade their legacy appliances for the updated ones. However, the current appliances will remain available for another 90 days for those who prefer the separation of these functionalities.

Moreover, French contends that one of the unique benefits of XRoads' Traffic Shapers is that there is no other product in the market-place that does real traffic shaping. XRoads' developers are continuously adding applications to its Layer-7 Traffic Control listings. These applications provide users with MultiLink Load Balancing, P2P, and Instant Messaging Throttling and Blocking. Users also have the ability to ascertain top applications, users, and host pairs to better understand who and what is using the largest portion of network bandwidth.

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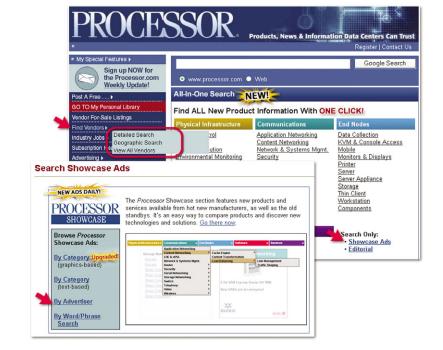
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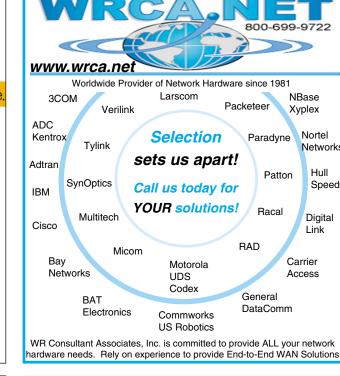
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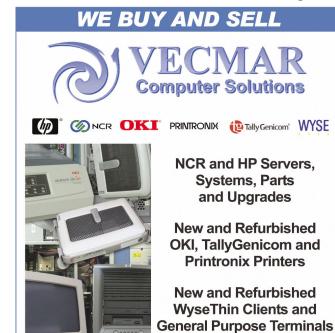
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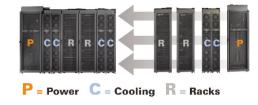
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